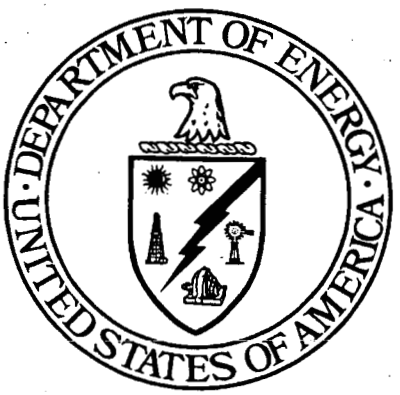
ON-SITE DISPOSAL FACILITY

IMPACTED MATERIAL PLACEMENT PLAN FOR WINTER MONTHS

FERNALD CLOSURE PROJECT
FERNALD, OHIO



DECEMBER 2004

U.S. DEPARTMENT OF ENERGY

20105-PL-0002
REVISION 1

REVISION SUMMARY

Revision	Date	Description of Revision
0	1-27-04	Initial issuance of Revision 0.
1	12-15-04	Revised to include describe construction and Construction Quality Control activities required for placement of approximately 140,000 to 175,000 cubic yards of impacted material in OSDF Cells 5, 6, 7 and 8 during the winter months of January 2005 through March 2005.

TABLE OF CONTENTS

ATTACHMENTS

ACRONYMS AND ABBREVIATIONS

ACM	asbestos-containing material
CQA	Construction Quality Assurance
CQC	Construction Quality Control
cy	cubic yards
DSDP	Demolition, Soil and Disposal Project
EPA	U.S. Environmental Protection Agency
FCP	Fernald Closure Project
IM	Impacted Material
IMPP	Impacted Material Placement Plan
OEPA	Ohio Environmental Protection Agency
OMTA	OSDF Material Transfer Area
OSDF	On-Site Disposal Facility
RCI	Request for Clarification of Information
SDFP	Soil and Disposal Facility Project
WAC	waste acceptance criteria

ON-SITE DISPOSAL FACILITY
IMPACTED MATERIAL PLACEMENT PLAN FOR WINTER MONTHS

1.0 PURPOSE

This Impacted Material Placement Plan (IMPP) is revised to describe construction and Construction Quality Control (CQC) activities required for placement of approximately 140,000 to 175,000 cubic yards (cy) of Impacted Material (IM) in the four active cells (Cells 5, 6, 7 and 8) of the On-Site Disposal Facility (OSDF) during the winter months of January 2005 through March 2005.

The technical approach presented in this IMPP for winter months was implemented during the winter months (January through March) of Calendar Year 2004 and will be followed during the winter months of Calendar Year 2005, and if required in Calendar Year 2006. This plan is updated based on lessons learned during the winter months of Calendar Year 2004.

2.0 APPLICABLE DOCUMENTS FOR WINTER PLACEMENT

A. OSDF Impacted Material Placement Plan (IMPP)

B. OSDF Construction Quality Assurance (CQA) Plan

C. OSDF Waste Acceptance Criteria (WAC) Attainment Plan

D. OSDF Technical Specification Section 13010 – Impacted Material Placement

E. OSDF Construction Drawings

F. Impacted Material Placement Plan for Winter Months

3.0 HEALTH AND SAFETY REQUIREMENTS

A. IM in winter months will be placed in accordance with the specific Safe Work Plan(s) [Traveler(s)] prepared for the winter month activities. This Safe Work Plan for winter months was prepared by the Safety and Construction Group, Soil and Disposal Facility Project (SDFP). An example of the current Traveler for the winter month's work is attached herewith for general information (see Attachment C).

B. During the winter months, special attention will be given to the pedestrian access within the work areas. Necessary controls will be established to remove mud, ice, and snow from the pedestrian pathways and access areas.

C. Impacted Material Haul Roads will be inspected and maintained to ensure that winter weather conditions will not adversely impact safe traffic flow.

4.0 GOALS AND ASSUMPTIONS

The following goals and assumptions are specific for the winter months of Calendar Year 2005 (January 2005 through March 2005):

A. Place approximately 140,000 to 175,000 cy of IM in the OSDF during the winter months.

B. During the winter months, equipment and manpower will be available to support IM placement up to 3,000 cy per day.

C. During the winter months, when weather and placement conditions permit, each workday will be a minimum of 8 hours per day. Also, if weather and IM placement conditions permit, Saturdays and Sundays may be workdays.

D. Placement of only Category 1 and Category 2 IM is planned during the winter months. Category 1 and Category 2 IM will be placed in accordance with the IMPP.

E. Placement of Category 3 (transite panels) IM is not planned during the winter months. Category 3 and associated Category 1 soil may be placed during winter months, if grids in addition to the selected grids for winter placement are available in OSDF Cells 5, 6, 7 and 8 and weather and placement conditions are acceptable. Category 3 IM will be placed in accordance with the IMPP.

F. Approximately 100,000 to 125,000 cy of Category 1 and approximately 40,000 to 50,000 cy of Category 2 IM will be placed in the OSDF during the winter months.

G. If placement of crushed concrete is planned during winter months, store up to 6,000 cy of Category 1 crushed concrete in each OSDF active cell before the end of December for winter month placement. Placement of crushed concrete is not planned in winter months of Calendar Year 2005.

H. If Category 1 crushed concrete is not available, up to 6,000 cy of Category 1 soil may be stored in each OSDF active cell before the end of December for winter month placement.

I. Up to 2,000 cy of Category 2 IM suitable for the haul road construction within the OSDF cells will be stored in each OSDF active cell before the end of December to support winter month placement.

J. Select grids in Cells 5, 6, 7, and 8 will be prepared for winter placement in December. Additional grids may be selected and approved by the Certifying Engineer and Construction Manager for the winter placement if acceptable winter placement conditions exist.

K. Anticipated workdays from January through March for IM placement will be estimated based on the weather pattern for the last five years at the Fernald Closure Project (FCP), Fernald, Ohio. Review of the last five years weather data show that more than 30-work days with daytime temperature 32 degrees F and above were available during winter months for potential IM placement (see Attachment D, Weather Data).

L. Necessary pre-winter months support activities described herein to place IM in winter months will be completed before the end of December.

5.0 PRE-WINTER MONTHS SUPPORT ACTIVITIES

In order to increase efficiency during the winter month placement, the following pre-winter month support activities will be planned and completed by December before the start of IM winter month placement:

A. Plan and select sources for the IM winter month placement before the end of December. Sources for the IMs include: excavation areas, IM stockpiles at the excavation areas, soil drying area in the former OSDF Material Transfer Area (OMTA), and Category 1 soil stockpiles in the OSDF active Cells 5, 6, 7 and 8. After the sources for the IM are selected, complete any site preparation required at these source locations before the end of December. Site preparation at the IM source locations may include preparation of the loading area, access to the IM stockpiles from the IM haul road, survey of IM stockpiles for the quantity confirmation, etc.

B. Store (stockpile) up to 6,000 cy of Category 1 soil in each OSDF active cell outside the selected grids for the winter placement before the end of December. An Request for Clarification of Information (RCI)/page change to IMPP has been approved to allow storage of up to 6,000 cy Category 1 soil in each OSDF cell for a duration of more than 30-calendar days.

C. In accordance with the IMPP, store up to 2,000 cy of Category 2 IM suitable for the haul road construction within each OSDF active cell before the end of December to support winter month placement. An RCI/page change has been approved to include storage of Category 2 IM in months of January and February.

D. Plan impacted material haul roads from the IM source locations to each selected grid for winter placement. These IM haul roads include haul roads outside and inside the OSDF. Prepare/improve/winterize IM Haul Road surfaces and drainage ditches along haul roads before the winter months IM placement. Haul Road improvement/winterization includes but is not limited to: regrading of the road surface to improve drainage, surfacing haul roads with crushed concrete and/or contaminated crushed rock removed from the excavation areas, repairing of road surface showing excessive pumping or soft surface, etc.

E. Review and modify Construction Traveler to cover winter month work scope and associated hazards and controls.

6.0 PRE-WINTER MONTHS GRID PREPARATION

In order to increase efficiency during the winter month IM placement, the following pre-winter months grid preparation activities will be planned and completed before the end of December 2004:

A. General:

1. Identify the selected grids and prepare these grids for IM winter month placement as described herein. Suitable grids for IM winter month placement will be selected in OSDF Cells 5, 6, and 7. Grids may be selected in OSDF Cell 8 for IM winter placement if placement of 3-foot thick select impacted material layer in Cell 8 is completed before December 31, 2004 or placement of select impacted material layer in Cell 8 is to be continued in the winter months. Grid selection will be performed before the end of December so that the selected grids could be prepared for the winter month placement before the end of December. For the proposed selected grids in OSDF Cells 5, 6 and 7 (see Attachment A, Sketches 4 through 6).

2. Construct Category 1 soil berms around the selected grids (see Attachment A, Sketches 1 through 3). Where feasible, keep one side of the selected grid open for unloading IM haul trucks.

3. Grade the last layer of the Category 1 soil in the selected grids and surrounding area to drain away from the placement grids. Seal the graded surface of the last layer in the selected grids using a smooth drum roller.

4. Install erosion and sediment controls in the active OSDF cells in accordance with the IMPP.

B. Placement of Category 1 Crushed Concrete
(See Sketch 1)

Placement of Category 1 crushed concrete is not planned during the winter months of Calendar Year 2005

1. Place Category 1 crushed concrete layer as a:

   a. 24-inch thick intervening layer over the existing Category 2 through 5 IM grids; and/or

   b. Last lift of minimum 6-inch thick of the 24-inch thick Category 1 IM intervening layer; and/or

   c. Minimum 6-inch thick layer over the first existing lift of Category 2 (if this is the last lift of Category 2 before the winter months) or over the existing Category 1 soil intervening layer.

2. Compact Category 1 crushed concrete in accordance with the IMPP.

3. Construct Category 1 soil berms at the selected grids as shown on Sketch 1.

C. Placement of Category 1 Soil Sacrificial Layer
(See Sketches 2 and 3)

1. Place 6 to 8-inch thick Category 1 soil sacrificial layer:

   a. Over the existing Category 1 soil intervening layer; and/or

   b. Over the existing Category 1 soil layer top of completed Category 2 through 5 IM grids; and/or

   c. Over the first Category 2 lift choked with Category 1 soil (if this is the last lift of Category 2 before the winter months)

2. Compact the Category 1 soil sacrificial layer placed before the winter months in accordance with the IMPP.

3. Construct Category 1 soil berms at the selected grid as shown on Sketches 2 and 3.

4. Category 1 sacrificial soil layer in total or in part may be substituted with other alternative temporary cover (e.g., blankets, heated tarp system).

7.0 ACCEPTABLE WEATHER, IMPACTED MATERIALS, AND PLACEMENT CONDITIONS FOR WINTER MONTH PLACEMENT

A. Acceptable Weather Conditions:

Acceptable weather conditions for the IM placement during winter months will be as follows:

1. General Conditions

   a. Do not place the IM during or within 24 hours of a 1-inch or greater rainfall event or equivalent snowfall event. Conditions outside of this condition are considered non-significant periods and amounts of precipitation.
   The Construction Manager in consultation with the Certifying Engineer will determine if conditions within the cells are deemed acceptable for impacted material placement after the initial 24-hour waiting period.

2. Specific Weather Conditions for each Category of IM

   a. Category 1 Crushed Concrete: (Not planned for Calendar Year 2005)
   Place Category 1 crushed concrete during non-significant periods and amounts of precipitation regardless of ambient or soil temperature. The impacted material must not be frozen or consist of free flowing material.

   b. Category 1 Soil:
   Place unfrozen Category 1 soil during non-significant periods and amounts of precipitation and when the IM soil temperature is 32 degrees F or above regardless of ambient temperature.

   c. Category 2:
   Place Category 2 debris material during non-significant periods and amounts of precipitation regardless of ambient or soil temperature.

   d. IM [e.g., thorium debris and asbestos-containing material (ACM)] requiring significant water spray for dust suppression:
   Upon notification to U.S. Environmental Protection Agency (EPA), and Ohio Environmental Protection Agency (OEPA), IM requiring significant water spray for dust suppression may be placed in a prepared grid when ambient air temperature is at or above 40 degrees F or the ambient air temperature is 32 degrees F and rising.

3. Verification of Weather Conditions

   a. CQC Technician will measure, record, and verify IM temperature in each placement grid as described below:

      1) At the START of the IM placement
      2) End of IM placement before Lunch/Break
      3) At the START of IM placement after Lunch/Break
      4) Every one hour during the IM placement from the start of placement to the end of the placement when air temperature is between 30 degrees F and 34 degrees F; and
      5) End of IM placement – at the end of the day

Temperature of Category 1 soil will be measured approximately 2 inches below top of the lift. Temperature of Category 2 IM lift will be measured near top of the Category 2 lift (e.g., near concrete or structural steel surface at the top of the lift).

b. CQC Technician will also measure and verify:

1) The temperature of Category 1 soil and crushed concrete and Category 2 IM at the excavation areas, IM stockpiles at the excavation areas and stockpiles in the OSDF at the start of loading of IM beginning of the day and after lunch/break.

2) Air temperature at start, before and after break/lunch, and end of the day's placement to monitor the trend and to assist the Construction Manager forecast and plan placement activities for the remaining day.

c. CQC Technician will monitor:

1) Freezing of moisture in the Category 1 crushed concrete and Category 2 IM and Category 1 soil during placement. If any freezing of moisture or soil is observed, CQC Technician will inform the Construction Manager immediately.

d. Precipitation (including snow and rain) at FCP site will be measured by Fluor Fernald.

B. Acceptable Impacted Materials

In addition to the requirements specified in the IMPP, acceptable IMs to be placed during the winter months will meet the following requirements:

1. General:

a. IM from stockpiles and/or excavation areas containing visible frozen material, snow cover more than 1/8-inch deep, ice, excessive moisture, or free draining liquids will not be placed in OSDF.

2. Category 1 Soil IM:

a. Frozen Category 1 soil and soil like material below 32 degrees F will not be placed in the OSDF. Frozen Category 1 soil and soil like material may be placed after it is thawed, reworked, and reaches the material temperature above 32 degrees F. CQC Technician will verify the acceptable IM requirements before material is accepted for the placement.

b. IM with excessive moisture regardless of IM temperature will not be placed in the OSDF. IM with excessive moisture is defined as the material that could not be tracked or compacted with the standard compaction equipment. The Certifying Engineer or Construction Manager may direct CQC Technician to verify the excessive moisture content in the material. IM with excessive moisture content may be placed after the moisture content is lowered to an acceptable level and the material reworked, and verified by the CQC Technician as the acceptable impacted material.

3. Category 1 Crushed Concrete and Category 2 IM:

   a. Category 1 crushed concrete and Category 2 IM debris may be placed in the OSDF regardless of the IM temperature provided visible frozen material and ice, snow cover more than 1/8 inch deep, excessive moisture, or free draining liquids are not contained in the IM. These IM are less susceptible to freezing during extended cold weather conditions; therefore, it is not anticipated that these IM will freeze.

4. IM (e.g., thorium debris and ACM) requiring significant water spray as dust suppressant

   a. IM requiring significant water spray will not be placed in the cells during January through March unless ambient air temperature is at or above 40 degrees F or the ambient air temperature is 32 degrees F and rising. EPA and OEPA will be notified before placement of this material.

5. Verification of IM at the source and in the OSDF

   a. IM in stockpiles at the sources, excavation areas, and stockpiles in OSDF will be visually observed for snow, frozen material, ice, excessive moisture or free draining liquid. The temperature of IM will be measured and verified as described in the Weather Acceptable Conditions.

   b. The Certifying Engineer or Construction Manager may direct CQC Technician to verify the excessive moisture content in the IM.

C. Acceptable Placement Conditions

Acceptable placement conditions for IM during winter month placement will be as follows:

1. General

   a. IM will be placed in the grids selected and prepared for the winter placement unless otherwise approved by the Construction Manager and the Certifying Engineer. Construction Manager and the Certifying Engineer will approve the grids for the winter placement based on the pre winter grid preparation requirements described herein.

   b. IM will not be placed with visible ice and frozen material, snow cover more than 1/8 inch deep, material with excessive moisture, or free draining liquid. Visible ice or frozen material and snow cover over the layer will be removed prior to IM placement.

   c. No IM will be placed on softened layer. Softened layer is defined as a layer, which could not be tracked or compacted by the standard compaction equipment due to high moisture content.

   d. IM will not be placed over the frozen layer. If a Category 1 soil sacrificial layer is frozen to a depth of more than 2-inches, the entire layer will be pushed off the grid before the start of IM placement and allowed to thaw prior to re-working the previously frozen soil. If Category 1 soil sacrificial layer is frozen to a depth of 2 inches or less, the top 2-inch layer will be tracked with construction equipment and loosened before the IM placement. Removal of a frozen layer and tracking of a 2-inch frozen layer will be confirmed by the CQC Technician. If ice lenses are found in the layer after tracking, layer will be tilled or disked down to

minimum 4 inches of non-frozen layer to distribute the excessive moisture through a larger depth and to break up ice lenses.

e. Before the start of the IM placement, the CQC Technician and Construction Manager will inspect and verify weather and placement conditions and placement surface in the grid selected for the placement. IM will be placed in the grid after weather and placement conditions and placement surface are verified and confirmed by the CQC Technician and approved by the Construction Manager.

2. Verification of Acceptable Placement Conditions

a. CQC Technician and Construction Manager will inspect and verify the weather and placement conditions and placement surfaces in the placement grids for the winter placement before and periodically during the IM placement.

b. CQC Technician and Construction Manager will inspect and verify the placement surfaces and IM layers for excessive moisture, visible ice or snow, and for frozen IM before and periodically during IM placement.

c. CQC Technician will verify the frozen and unfrozen layer conditions by measuring the IM temperature in the layer.

D. Equipment

1. No special equipment will be needed for the IM placement (see Attachment F for Construction Resources). Additional equipment may be needed if mechanical system is selected to heat and/or cover the working layer as a contingency application.

E. Placement

1. Specific Health and Safety requirements for the IM placement during winter months will be as described in the specific Safe Work Plan (Traveler).

2. Fugitive Dust control requirements will be as specified in the IMP Plan and the Safe Work Plan (Traveler). Dust suppressants (e.g., water mist, crusting agents, etc.) may be used to effectively control fugitive dust emissions. Dust suppression methods will be selected to minimize excessive water use during freezing temperatures. Surface preparation to sufficiently grade to drain surface water away from the working area, using drum rollers to minimize rough surfaces where water can be trapped, and limiting the speed limit for haul trucks are example of working with water mist in freezing conditions.

3. Maintain the IM Haul Roads from the IM source locations to the selected grids in the OSDF. Also maintain the drainage ditches and drainage along the IM Haul Roads.

4. Maintain the erosion and sediment controls in the OSDF and IM placed in the OSDF including IM slopes, catchment areas, fences, and signs.

5. Place IM during winter months in the grids selected and prepared for the winter placement.

6. Confine daily IM placement to a maximum of eight (8) selected grids.

7. Remove visible ice or frozen material and snow cover from the layer.

8. Before start of the IM placement, inspect and verify placement grids, weather conditions, IM conditions, and placement conditions. Enter inspection and verification information into Pre-Placement Daily Inspection Check List attachment herewith (Attachment B). Check list will be approved by the Construction Manager or his representative with concurrence from the Certifying Engineer. Do not start IM placement till Pre-Placement Daily Inspection Check List is complete and approved. A copy of the approved Check List will be submitted to the Demolition, Soil and Disposal Project (DSDP) Project Director or Project Manager and will be transmitted (faxed or emailed) to EPA and OEPA before the end of the work day.

9. Place IM in the selected grid after the grid is verified and inspected by the CQC Technician and approved by the Construction Manager.

10. After the selected grid is approved for the placement, track the placement surface. Remove IM softened by excessive moisture and replace with Category 1 soil or crushed concrete.

11. If a Category 1 soil sacrificial layer is frozen more than 2 inches in depth, entire layer will be removed before the start of IM placement and stockpiled outside the placement grid. Stockpiled frozen material may be reused after it is thawed, reworked, and meets the impacted material requirements described herein.

12. If a Category 1 soil sacrificial layer is frozen less than 2-inch in depth and the layer is to be left in place, the top 2-inch layer will be tracked with construction equipment, loosened, and compacted in accordance with the IMP Plan before beginning IM placement over the layer. It is not anticipated that a Category 1 soil sacrificial layer will freeze more than 6 inches in depth.

13. Obtain the IM from the Category 1 soils and crushed concrete stockpiles and/or excavation and Category 2 from OMTA or IM stockpiles. Verify that the IM is not frozen by checking temperatures of soil or visually inspecting crushed concrete or Category 2 debris for ice. Remove frozen IM, snow, and/or ice from the stockpiles or at excavation. The frozen soil material will be pushed aside and allowed to thaw. The Construction Manager and the CQC Technician will verify IM at the stockpiles and excavation. IM acceptable for the placement will be hauled to the OSDF for placement.

14. Place IM during acceptable weather conditions described herein. Stop IM placement when weather conditions change and do not meet the described acceptable weather conditions.

15. IM will be placed in accordance with the IMP Plan except the construction of the Category 1 berms. Currently IMPP shows 2-foot berms. An RCI/page change to IMPP has been approved to allow a berm height up to 4 feet for IM placement.

16. Protect surface of new lift of the Category 1 soil to prevent freezing between the lifts.

17. To protect the Category 1 soil lift from freezing between the active placement period (e.g., period from the beginning of the active placement to the end of each work day and period from the end of the work day to the beginning of active placement next work day), cover the compacted layer with 6 to 8 inches of the Category 1 soil sacrificial layer and seal with steel drum roller. Category 1 soil sacrificial layer placed to protect the Category 1 soil layer between the active placement periods will not be compacted.

18. When a 6 to 8-inch thick lift of Category 1 crushed concrete is used to protect an underlying Category 1 soil intervening layer, and has been left idle for more than three (3) days of continuous freezing temperatures before placement occurs, the soil conditions of the underlying Category 1 soil intervening layer shall be checked.

19. When freezing temperature is forecasted for more than 24-hours and when Category 1 soil is not available, a layer may be covered with temporary alternate cover (e.g., blankets, plastic covers, heated tarp system). Secure the cover with sand bags.

20. Typical placement of IM during winter months will be as shown on the Sketches attached to this Plan.

21. Special IM (e.g., thorium debris and ACM) requiring significant water spray for dust suppression shall not be placed during the months of January through March. However, if ambient air temperatures are at or above 40 degrees F or the ambient air temperature is 32 degrees F and rising, the special IM may be placed with EPA and OEPA notification.

F. CQC Testing

1. CQC Testing and verification for the IM placement will be as specified in the IMPP, OSDF Technical Specification Section 13010, OSDF IMP CQA Plan, and this document.

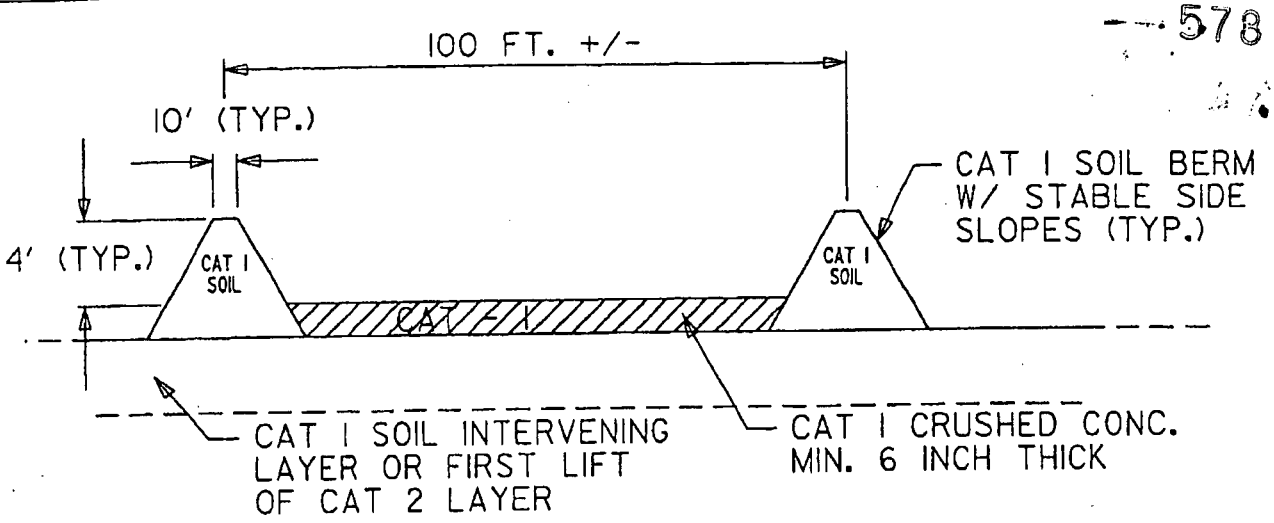
G. Key Personnel

Following personnel are designated as key personnel for IM placement during the winter months of January 2005 through March 2005:

Key Personnel	Primary Contact	Alternate Contact
Project Director	Dan Powell	Jyh-Dong Chiou
Construction Manager	Mike Stumbo	Mary Eleton/Kevin Harbin
Certifying Engineer	Jim Fleck, GeoSyntec, Inc.	Collin Sukow, GeoSyntec, Inc.

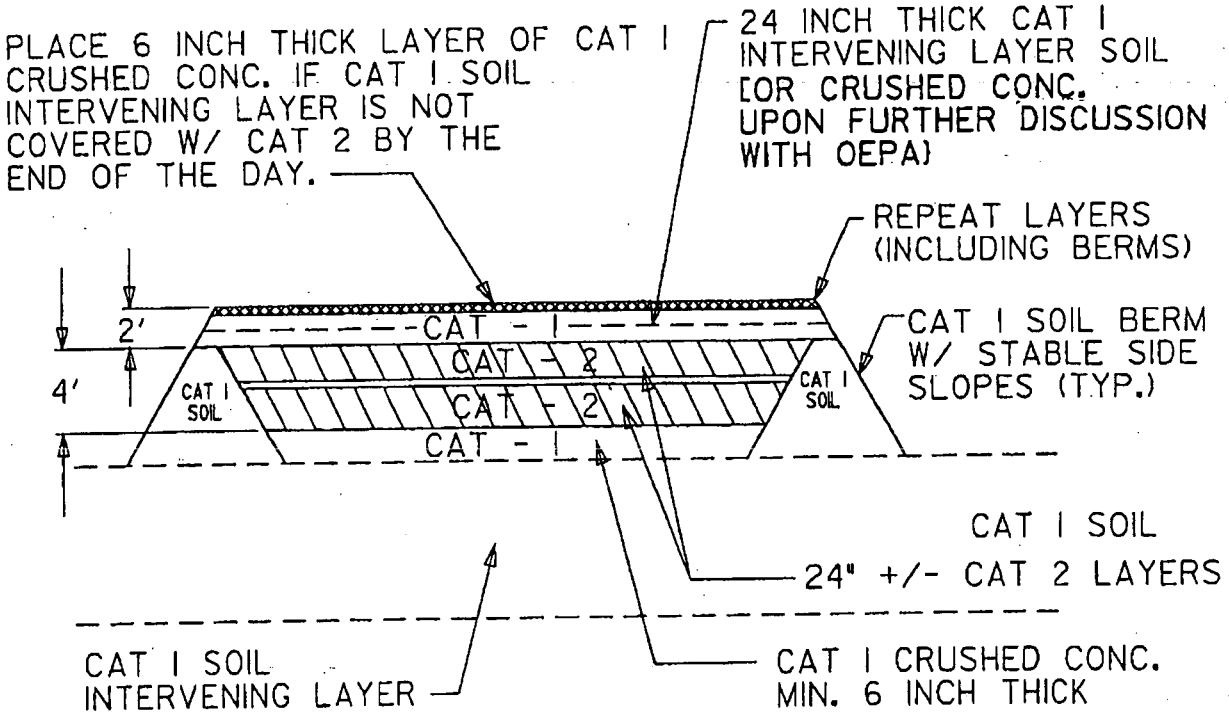
ATTACHMENT A

SKETCHES



TYPICAL SECTION
PRE-WINTER GRID PREPARATION W/CATEGORY I CRUSHED CONCRETE

(NOT TO SCALE)



TYPICAL SECTION - WINTER PLACEMENT

(NOT TO SCALE)

IMPACTED MATERIAL PLACEMENT FOR WINTER MONTHS PLACEMENT OF CATEGORY I CRUSHED CONCRETE (NOT TO SCALE)	SKETCH 1

/2003 placement/WINTER PLACEMENT_04_Sketch 1.dgn

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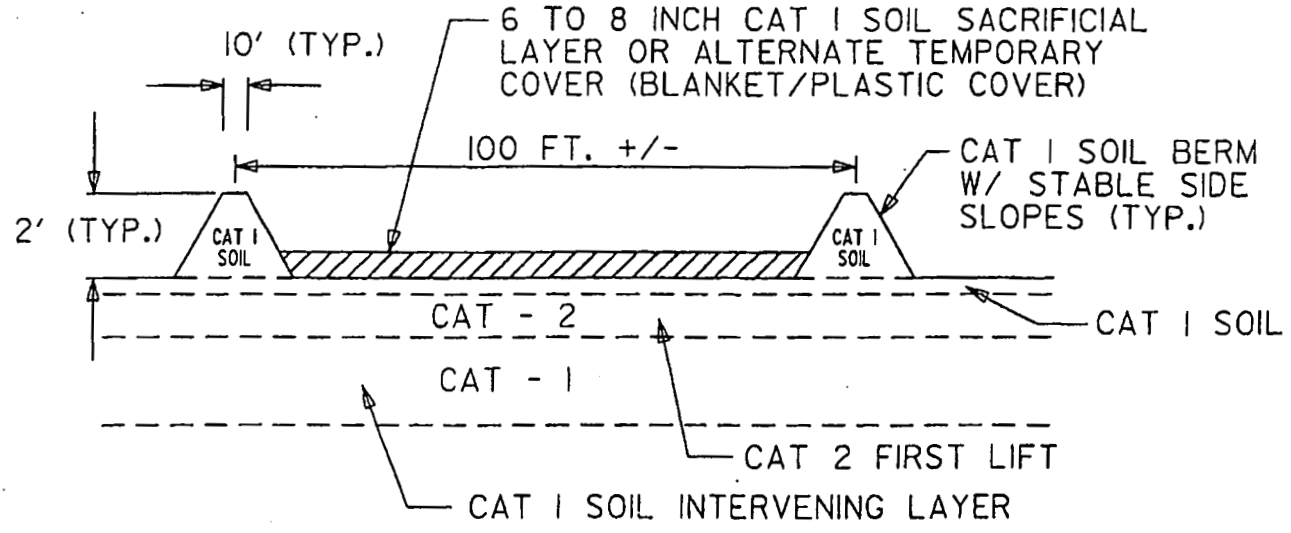

TYPICAL SECTION
PRE-WINTER GRID PREPARATION W/ CAT I SOIL SACRIFIAL LAYER CASE I
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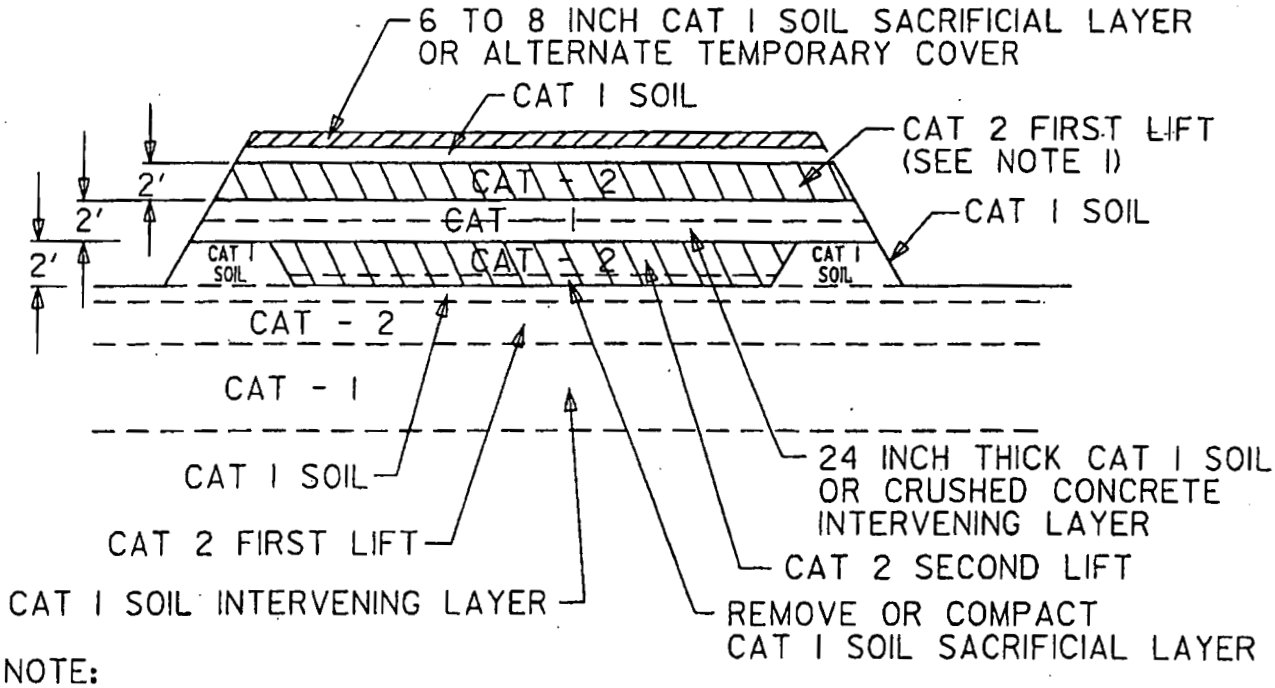

NOTE:
1. IF WEATHER CONDITIONS PERMIT, CONSTRUCT BERMS BEFORE CATEGORY 2 PLACEMENT. OTHERWISE, CONSTRUCT BERMS IMMEDIATELY AFTER WINTER MONTHS.

TYPICAL SECTION - WINTER PLACEMENT
(NOT TO SCALE)

IMPACTED MATERIAL PLACEMENT FOR WINTER MONTHS PLACEMENT CATEGORY I SOIL SACRIFICIAL LAYER CASE I (NOT TO SCALE)	SKETCH 2

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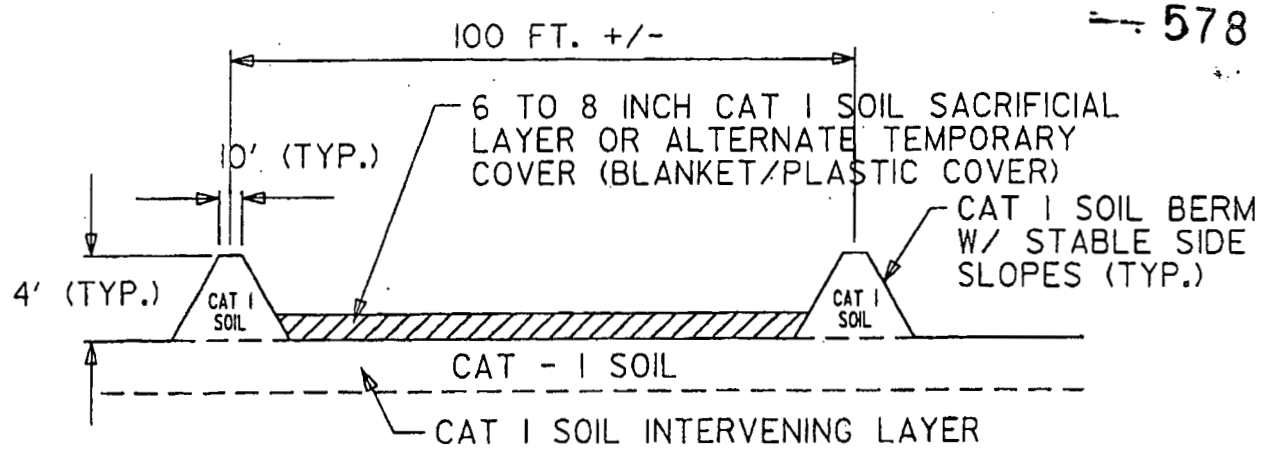

TYPICAL SECTION
PRE-WINTER GRID PREPARATION W/ CAT I SOIL SACRIFICAIL LAYER CASE 2

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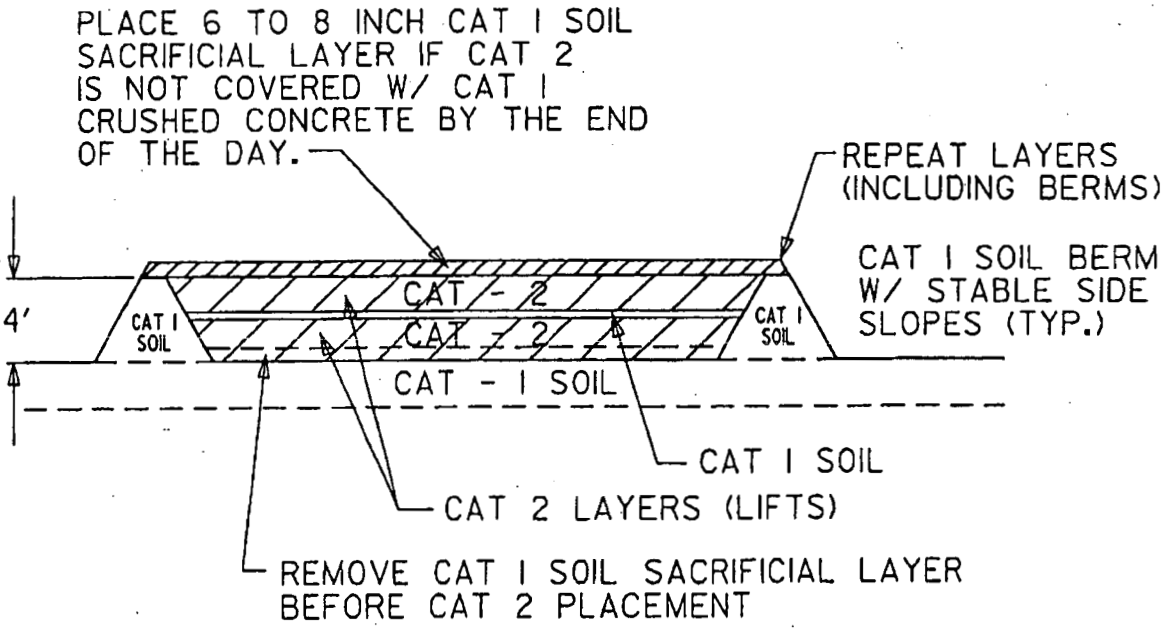

TYPICAL SECTION - WINTER PLACEMENT

(NOT TO SCALE)

IMPACTED MATERIAL PLACEMENT FOR WINTER MONTHS PLACEMENT OF CATEGORY I SOIL SACRIFICIAL LAYER CASE 2	SKETCH 3
(NOT TO SCALE)	

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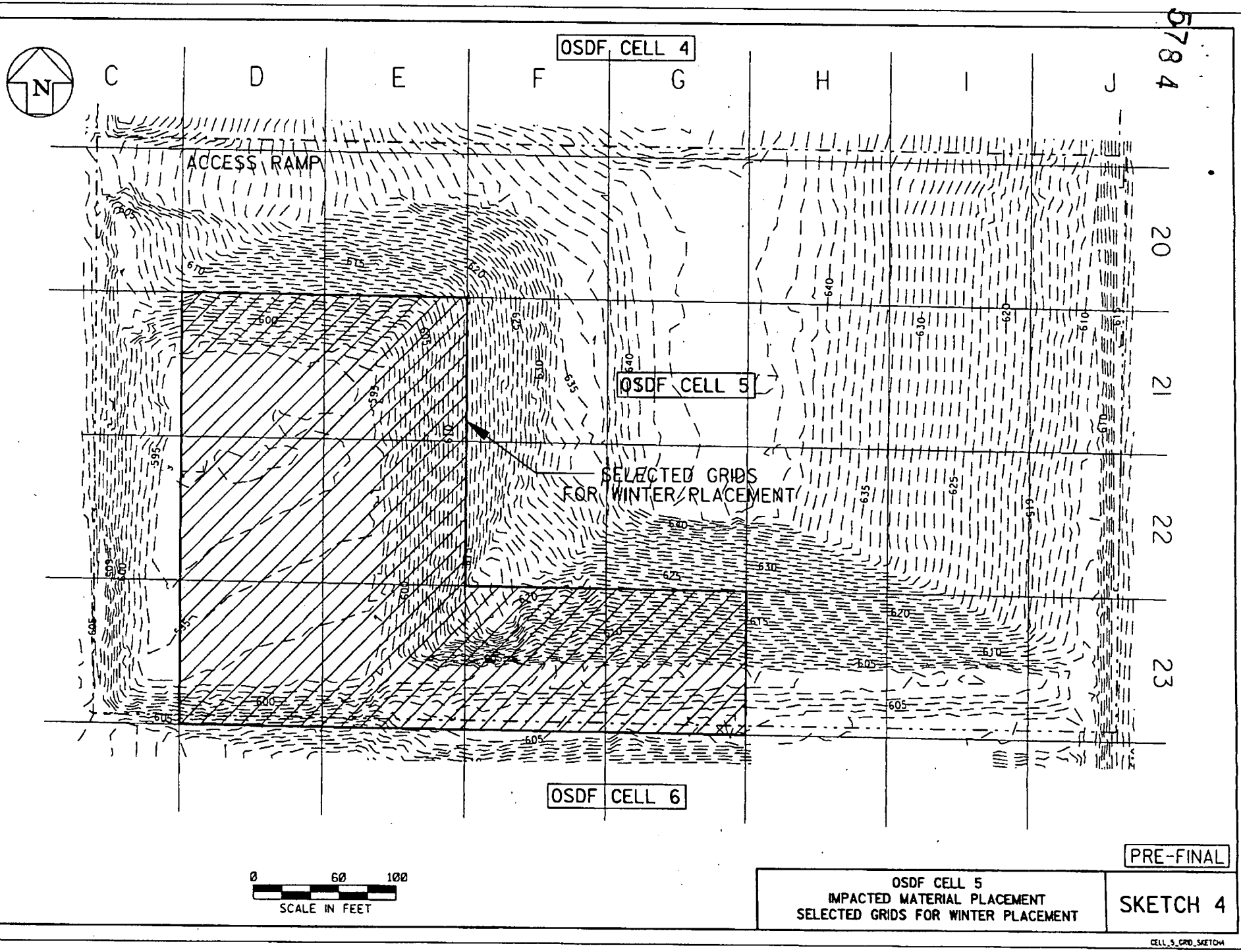

PRE-FINAL

OSDF CELL 5 IMPACTED MATERIAL PLACEMENT SELECTED GRIDS FOR WINTER PLACEMENT	SKETCH 4

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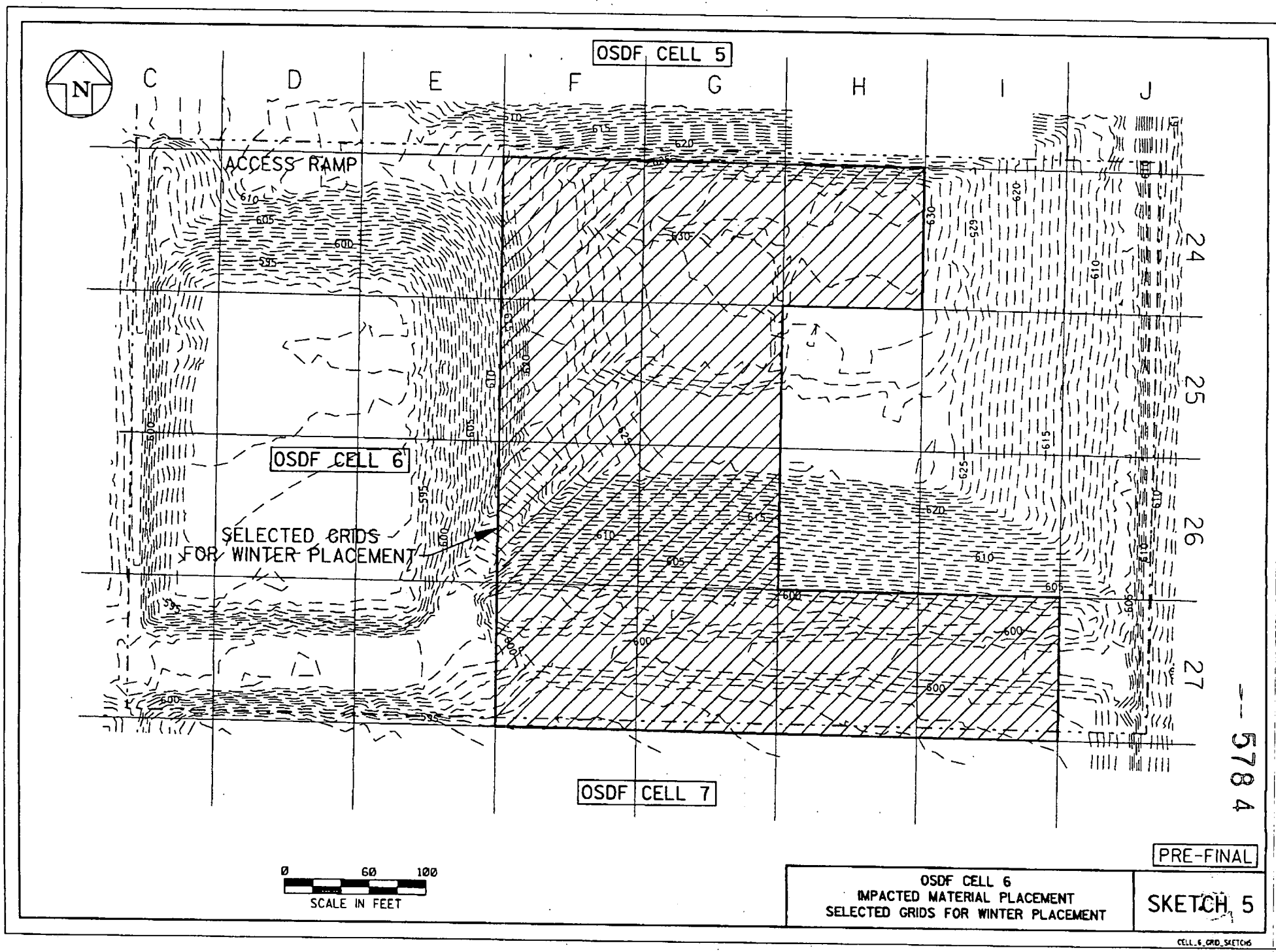

PRE-FINAL

OSDF CELL 6
IMPACTED MATERIAL PLACEMENT
SELECTED GRIDS FOR WINTER PLACEMENT

SKETCH 5

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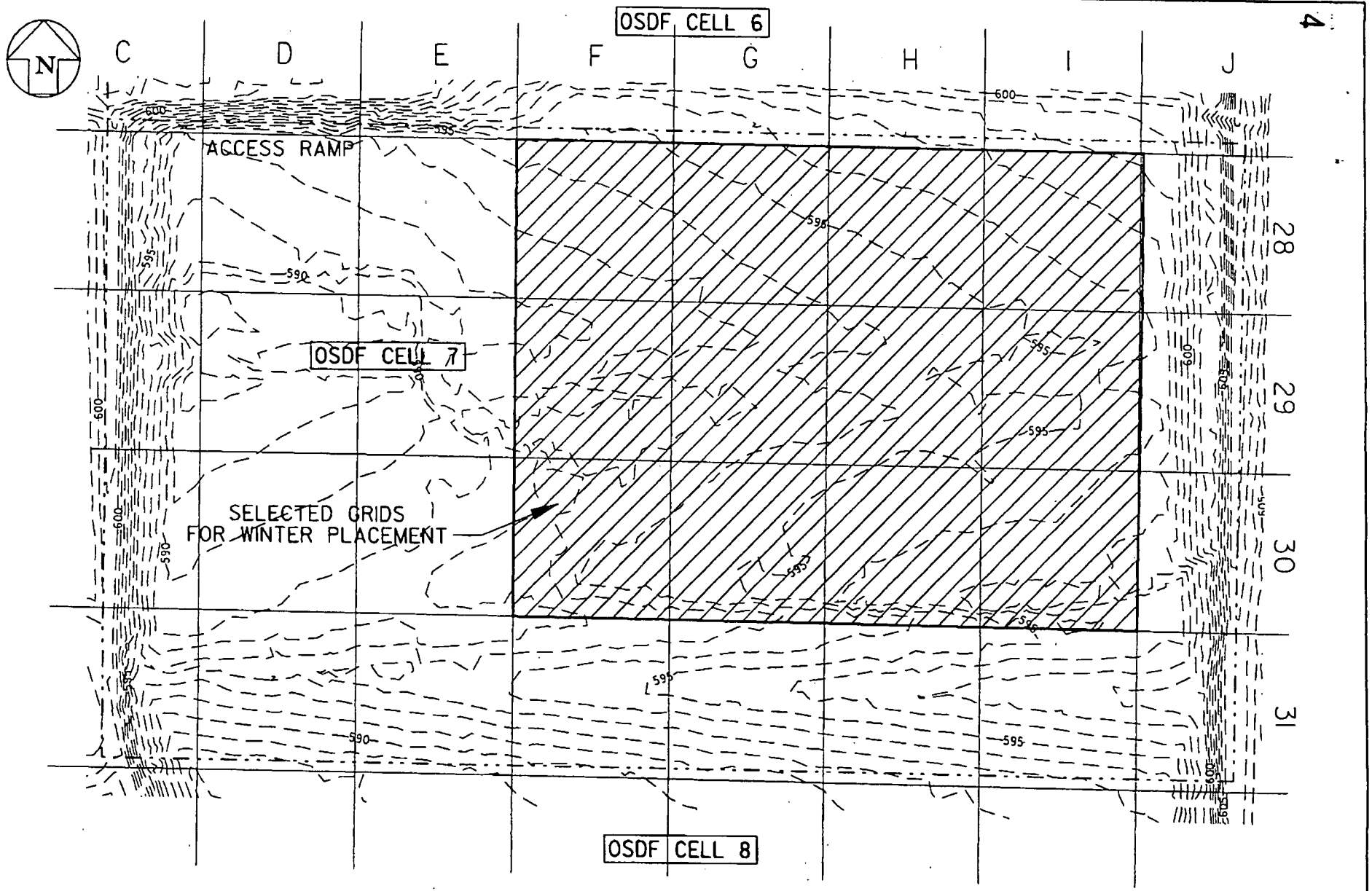


PRE-FINAL

OSDF CELL 7 IMPACTED MATERIAL PLACEMENT SELECTED GRIDS FOR WINTER PLACEMENT	SKETCH 6

CELL_7_GRID_SKETCH6

ATTACHMENT B

PRE-PLACEMENT DAILY INSPECTION CHECKLIST

DRAFT
Rev. A, 12/8/03
Prepared By: Uday Kumthekar

IMPACTED MATERIAL WINTER PLACEMENT
PRE-PLACEMENT DAILY INSPECTION CHECKLIST
WINTER MONTHS - JANUARY AND FEBRUARY
(Reference: IMP Plan For Winter Placement)

5784

Inspection and Placement Date: _____
Inspection Time: _____
Air Temperature: _____Degree F
Weather : Sunny/Partly Cloudy/Rain/Snow
Wind : Calm/Windy

Inspection/Verification By (Enter Names):
Fluor Fernald CM: _____
CQC Technician: _____
Cert. Engineer: _____
_____ : _____

Previous Work Day IM Placed	IM Placed Previous Day ICY	Total IM Placed at the End of Previous Day - ICY	Weather (Last 24-hours)						Remark
				Ngt Temp	Day Temp	Rain	Snow	Wind	
Date:									
Day:									

ITEM	Ref. Article IMPP - WP	REQUIREMENT	Inspected/Verified BY	PLACEMENT GRID (A = Approved, U - Not Approved)						REMARK
A. GRID APPROVAL (A = Approved, U = Not Approved)										
2. Selected Grid Location	6.0.A.1 & 7.0.C.1.a	Approved Grid Location	Cert. Engg. & CM							
3. Grid Approval	6.0.A.1 & 7.0.C.1.a	Approved Grid	Cert. Engg. & CM							
B. WEATHER CONDITIONS (A = Acceptable, U = Unacceptable)										
Cat. 1 Soil Placement										
1. Precipitation	7.0.A.1.a	No significant snow, ice, or rain	Cert. Engg. & CM							
2. Precipitation Measurement	7.0.A.2.3.d	NA	Measurement By FF							
3. IM Temperature	7.0.A.2.b & 3.a	32-Degrees and above	CQC Tech.							
Cat. 1 Crushed Concrete and Cat. 2 Placement										
4. Precipitation	7.0.A.1.a	No significant snow, ice, or rain	Cert. Engineer & CM							
5. Precipitation Measurement	7.0.A.2.3.d	NA	Measurement By FF							
6. IM Temperature	7.0.A.2.b & 3.a	NA	CQC Tech.							
C. IMPACTED MATERIAL CONDITIONS (A = Acceptable, U = Unacceptable)										
Cat. 1										
1. IM at Source (stockpiles and Excavation Areas)	7.0.B.1	No visible frozen mat'l and ice and snow cover no more than 1/8-inch deep	CM and CQC Tech.							
2. IM Temperature at source	7.0.B.2.a	32- Degrees and above	CQC Tech.							
3. Frozen reworked soil	7.0.B.2.a	32- Degrees and above	CM and CQC Tech.							
4. IM with excessive moisture	7.0.B.2.b	No excessive moisture and free liquid	CM or Cert. Engineer and CQC Tech.							
Cat. 1 Crushed Concrete										
5. IM at Source (stockpiles and Excavation Areas)	7.0.B.1	No visible frozen mat'l and ice and snow cover no more than 1/8-inch deep	CM and CQC Tech.							
6. IM with excessive moisture	7.0.B.2.b	No excessive moisture and free liquid	CM or Cert. Engineer and CQC Tech.							
Cat. 2										
7. IM at Source (stockpiles and Excavation Areas)	7.0.B.1	No visible frozen mat'l and ice and snow cover no more than 1/8-inch deep	CM and CQC Tech.							
D. PLACEMENT CONDITIONS (A = Acceptable, U = Unacceptable)										
General										
1. Placement Layer/Surface	7.0.C.1.b	No visible frozen mat'l and ice and snow cover no more than 1/8-inch deep	CM and CQC Tech.							
	7.0.C.1.c	No soften layer	CM and CQC Tech.							
	7.0.C.1.d	No frozen layer, more than 2-inch deep	CM and CQC Tech.							
2. Equipment	7.0.D.1	NA	CM							
3. Dust Control	7.0.F.2	No fugitive Dust	CM							
E. OTHER CONDITIONS (A = Acceptable, U = Unacceptable)										
1. E & S Controls	7.0.D.4	Inspection of E & S Controls	CM							
2. Rad/Construction Fence	Traveler/7.0.D.1	Inspection of Rad/Constr. Fence	CM							
3. IM Haul Roads	7.0.D.3	Inspection of Haul Roads	CM							

A = Acceptable for Placement, U = Unacceptable for Placement, **CM:** Construction Manager or his Representative, **Cert. Engineer:** Certifying Engineer for CQA Report

REMARK: _____

APPROVED GRIDS FOR PLACEMENT: Date: _____ Time: _____ | | | | | | | |

APPROVED BY: (Signature)
CM: _____
CQC Technician: _____
Cert. Engineer: _____

TIME AT THE END OF IM PLACEMENT IN EACH GRID: | | | | | | | |

TIME ENTERED BY:
(Name) _____
(Signature) _____
Date: _____

ATTACHMENT C

TRAVELER FOR WINTER MONTH'S WORK

1.11.3 Tools

Safety and Health Representative (S/HR) shall inspect and approve tools and equipment for use. Any tool that is defective shall be tagged out of service and removed from site.

1.11.4 Daily Inspection of equipment

Operators/drivers shall inspect equipment prior to use on a daily basis and after repairs. Inspection shall include, but not be limited to, the items defined in section 1.12 below. With rental/leased equipment, the vendor may complete parts of the equipment inspection, such as engine fluid levels. If this is to occur, the CMT will inform the operator/driver as to what inspections have been completed by others. If deficiencies that may affect the safe operation of the equipment are identified during the inspection or while in use, the operator/driver will notify his/her supervisor for an assessment of the concern and ensure the supervisor initials the column for the date the concern was expressed. Any deficiency shall be resolved prior to use of the equipment. This inspection is to be documented on the "Operator's Pre-Use Heavy Equipment Inspection Checklist" form.

1.11.5 Fire extinguishers

The operator shall inspect the fire extinguisher daily to ensure that the unit will be operational. The results of this inspection shall be documented on the daily inspection form noted in above (11.1.4). This inspection shall include the following:

- For damage to the cylinder, hose or gauge
- Correct operating pressure as observed on gauge
- Pin in place and sealed
- Operational instructions and labeling in place
- Properly mounted and assessable

1.12 SAFE WORK PRACTICES FOR MOBILE EQUIPMENT & PROJECT VEHICLES

CMT will assure that all mobile equipment and project vehicles ("Equipment") at all times are maintained to a safe, controlled configuration. This includes:

- Operators/drivers shall perform a 360-degree walk-around of all motorized equipment and government vehicles prior to operating the equipment or vehicle. This walk-around should be performed prior to each entry into the equipment or vehicle.
- Operators/drivers and passengers shall wear seat belts at all times while the Equipment is in operation or motion.
- All incoming Equipment is required to pass an initial, pre-use inspection conducted jointly by CMT and S&H representatives.
- Operators/drivers shall maintain cab (or interior) housekeeping and cleanliness to ensure worker safety. This includes removing excessive amounts of dirt, mud or dust that could cause respirable dust to be circulated in the cabs of equipment causing re-circulation filters to become clogged and/or to decrease performance of the HVAC system. This can be done by either personnel removing soils from their assigned equipment/vehicle in non-contaminated areas or ensuring supervisor is notified that their equipment/vehicle should be scheduled for cleaning/vacuuming with a HEPA-Vacuum in contamination areas.

- Operator/driver shall complete a daily inspection. The inspection shall include, but not be limited to, the following items: electronic backup alarm, brakes (if applicable), steering mechanisms, oil and fluid leaks, engine, hoses, cab ventilation systems (if applicable), clean windshields, tires or tracks, brake lights and head lights (if applicable). Any deficiency noted shall be reviewed by CMT prior to using the equipment/vehicle.
- For daily equipment/vehicle inspection with mechanical concerns noted, the supervisor with technical assistance from knowledgeable/experienced representatives such as a Master Mechanic shall determine if the equipment is safe to operate. Unsafe equipment shall be tagged "DANGER – DO NOT USE" until the equipment is removed from site or repaired, re-inspected, and returned to service.
- Equipment/vehicles shall not be overfilled during refueling operations. All spills shall be reported immediately to the CMT, who will assess the spill scene. As a minimum, spill clean up supplies including absorbent pads and booms shall be kept in the tool trailers, service trucks, and at all locations where there is a potential for spills to occur. As possible, spill control materials should be kept in each piece of Equipment.
- Service and maintenance personnel will be equipped with appropriate spill containment and control equipment. Prior to initiating such activities whereby motor oil, hydraulic fluid, or other materials may be released, preventative steps will be taken to assure any spills will be contained and managed with minimal impact to the surrounding environment.
- The speed limit for all Equipment is 20 mph on the paved road surfaces and 10 mph on unpaved areas or in excavations.
- The enclosed cab Equipment operators/drivers are required to park in the designated locations within the Contamination Area as specified in the Radiological Work Permit (RWP) and/or section 1.36.4 "Project Area Radiological Requirements" for "Enclosed Cab Equipment Parking/Staging Area" prior to exiting at the Radiological Control Point Facilities (in cases other than emergencies).
- Radiological Control Technicians (RCTs) will perform routine radiological surveys on Equipment cabs as specified in the RWP during times when equipment/vehicles are parked. Operators/drivers will clean the cabs as directed by the RCTs based on the findings of their routine surveys.
- Operators/drivers shall not have portable radios (AM/FM), tape/CD players or use personal headphones in the cab while operating Equipment. Only site communication equipment shall be permitted in the cab.
- Cellular phone use while operating/driving Equipment is prohibited. Only FCP site-owned cellular phones are permitted in equipment and vehicles. Operators and drivers may use cellular phones only after:
  - Exiting the flow of operations or traffic, and
  - Stopping the Equipment, placing the equipment in a safe configuration, setting the parking brakes, and/or shutting down the Equipment
- Personnel who may be required to operate Equipment on slopes or inclines shall review the task with the CMT and confirm by the Operators Manual that the equipment is designed for and capable of safely operating at the planned angle of operation.
- Operators/drivers shall review new tasks with their supervisor prior to the operation. Road/terrain conditions, area hazards (overhead & below) and other operational hazards shall be reviewed.

- A spotter shall be required whenever excavators are being tracked outside of a defined construction area.
- Whenever cleaning caked soil from articulating dump truck beds using an excavator, the operator shall proceed as follows:
  - Whenever possible, use an excavator with a bucket narrow enough to fit within the well of the truck bed
  - Operator should have a clear view of the inside of the truck bed
  - Do not fully raise the truck bed – raise the bed to only approximately 75% of the fully-raised position
  - Exercise care when scraping out material with the excavator bucket. Do not apply too much force on the truck bed or bang the side of the bed with the excavator
- The use of Gators and other All-Terrain Utility Vehicles is limited to personnel that have been trained and authorized as per SPR 7-3. Prior to use, the driver must become familiar with the surface conditions and any hazards in the area.
- CMT will verify that S/VP will provide and operate equipment and tools in accordance with contract requirements.
- For personnel in close proximity to operating Equipment:

1.12.1 Approaching Heavy Equipment

Personnel shall not approach equipment (within 25 ft) without prior approval from the operator of the equipment. This can be by radio or hand signals. See 1.14 below.

1.12.2 Contact with equipment

Personnel who need to contact (touch) equipment, such as for manifest or radiological surveys shall wait for the operator to authorize the approach. The operator shall not approve personnel to approach or make contact with the equipment until shifted into neutral, raised beds and/or arms are down/grounded and the brakes set (for trucks). See 1.14 below

1.12.3 Movement of Heavy Equipment Beneath Overhead Wires

Whenever heavy equipment requires travel beneath overhead wires, additional requirements shall be implemented prior to proceeding beneath the wires. These requirements apply to all personnel working on the project, including subcontractor and vendor personnel, and are as follows:

- Operation/movement of heavy equipment must be by qualified operators only, including when movement is required for performing maintenance/repair activities on the equipment
- Excavator operators shall lower and flatten out the boom/stick when traveling beneath overhead wires. Lower/flatten boom when within 30-ft of overhead wires. Excavator can travel with boom/stick to front or rear, depending on specific conditions. If this cannot be accomplished or is judged unacceptable, contact the supervisor and a dedicated ground spotter shall be used to flag the equipment travel beneath the overhead wire.
- The Caterpillar 375 Excavator (or equivalent) shall require a spotter for any travel beneath an overhead wire. The equipment shall be configured to ensure the maximum clearance from the wire during travel. The supervisor shall ensure that a spotter is in place prior to performing this activity.

1.12.4 Safe Parking Procedures

Whenever a vehicle or piece of heavy equipment is parked, it shall be put into a safe configuration. "Parked" is defined as any time the operator/driver exits the equipment or vehicle, including times when the equipment or vehicle is being repaired or serviced.

For heavy equipment, safe parking includes:

- Lower all tools, attachments, buckets, etc., to the ground
- Lower all beds, booms, lifts, etc., to their lowest position
- Place the transmission in neutral (or park, if available)
- Set the parking brake
- Turn the motor/engine off
- If the equipment is on an incline, chock the wheels

For vehicles, safe parking includes:

If the vehicle has a standard shift transmission:

- Turn the motor/engine off
- Set the parking brake
- Place the transmission in the lowest forward gear

If the vehicle has an automatic transmission:

- Place the transmission in park
- If the vehicle is on an incline, set the parking brake
- Turn the motor/engine off

Exceptions to the Safe Parking Procedures requirements are as follows:

- If the operator/driver remains within an unobstructed 25-ft path of the vehicle/equipment, the operator/driver may leave the motor/engine running and exit the equipment/vehicle if:
  - All moveable parts are lowered and
  - The parking brake is set
- If a piece of heavy equipment or vehicle is being operated in cold weather (less than 32° F), the operator/driver may leave the motor/engine running and exit the equipment/vehicle if:
  - All moveable parts are lowered and
  - The parking brake is set

1.12.5 Passenger Vehicle Undercarriage Cleaning

If the operator/driver of a DOE-owned or leased passenger vehicle determines that the vehicle has excess amounts of mud built up on the undercarriage, or if the operator/driver notices difficulty in the operation of the shift lever of the vehicle, the vehicle shall be tagged out of service until the undercarriage and transmission linkage of the vehicle is cleared of mud.

1.29 HEAT AND COLD STRESS

Personnel who are unaccustomed to working in environmental temperatures above or below their normal comfort range are particularly susceptible to heat or cold related injuries and illnesses. However, even the most acclimatized workers can experience potentially life-threatening conditions when working in temperature extremes. We are committed to implementing our comprehensive programs for heat and cold stress management to prevent such injuries or illnesses, using the full range of programmatic controls, including, but not limited to the following.

Hazard	Mitigator/Control
Heat stress	• Identify potential heat stress conditions during project planning and include feasible controls or preventative measures to minimize heat stress in project design • Implement feasible engineering controls (e.g., air-conditioned work spaces, shielding from sunshine, increased air movement, etc.) • Implement feasible administrative controls (e.g., schedule tasks with the higher heat stress potential for cooler times of the day, personnel rotation, etc.) • Provide heat stress briefings to include physiological monitoring requirements in accordance with SPR 12-10, Working in Hot Temperatures • Implement buddy system for isolated work activities • Comply with heat-related restrictions imposed by Fluor Fernald Medical • Ensure workers become acclimatized to work task • Provide access to shaded or air-conditioned rest areas • Provide access to drinking water • Ensure environmental monitoring is performed to evaluate heat stress conditions • Conduct physiological monitoring as specified in SPR 12-10, Attachment C • Encourage personnel to take breaks and drink water as needed • Refer to SPR 12-10 for additional requirements
Cold Stress	• Orient crew to Cols Stress Management Plan • Provide cold stress briefings in accordance with SPR 12-9, Working in Cold Temperatures • Implement buddy system for isolated work activities • Comply with cold-related restrictions imposed by Fluor Fernald Medical • Wear multiple layers of loose-fitting, layer protective clothing, and maintain an extra set of dry clothing • Wear appropriate hand/foot protection based on work conditions (e.g., rubber gloves when working with water, rubber boots when working in wet/muddy conditions) • Immediately change clothing if a significant area becomes saturated or immersed in water

Hazard	Mitigator/Control
	• Be aware of the encumbrances of wearing cold-weather PPE and the resulting hazards related to the loss of dexterity, limited range of motion, impaired vision, and impeded balance associated with its use • CMT will review needs for new or additional winter-weather PPE and accessories, and maintain an inventory in readiness for winter work based on this review • Encourage personnel to take warm up breaks as needed. • Refer to SPR 12-9 for additional requirements

1.30 CLEARING AND GRUBBING

Clearing and grubbing of vegetation may be performed on occasion throughout the course of this project. This section describes hazards associated with minor clearing and grubbing operations and is based on typical methodology used. All clearing and grubbing operations will be reviewed prior to actual performance of the work to assure compliance with Fluor Fernald procedures.

Significant green vegetation will typically be cleared prior to topsoil stripping. Topsoil will be stripped with a dozer or equivalent and stockpiled or loaded into trucks. The dozer will periodically dress and shape the stockpile as required and sediment and erosion control measures shall be maintained for the duration of the activities.

1.30.1 Hazards, Mitigators, and Controls

CMT will review the work tasks with its labor force daily before work begins, and after lunch. Attention will be given to assure proper PPE is supplied and all work area requirements are followed.

Additional potential safety hazards associated with this work are addressed in the table that follows:

Task	Hazard	Mitigator/Control
General hazards associated with clearing and grubbing	Biological hazards (poisonous plants, insect bites, snakes)	• Refer to section 1.22 "General Physical Hazards" of this document • Clear and grub work area
	Exposure to Respirable Dust Potentially containing Silica	• Apply water spray before/when grinding if operation generates visible dust • Refer to section 1.26 "Dust Control" of this document
Felling and sectioning trees using chain saws	Injury from accident during chain saw use	• Walk space prior to cutting to assure free range of motion and to plan clear pathway for emergency egress • Comply with safety recommendations listed in owner's manual • • Others shall maintain a safe

Hazard	Mitigator/Control
Personnel Injury	• Personnel that access a manlift must be tied-off using a fall protection harness and lanyard system • Daily inspection of harness and associated equipment • Follow fall protection requirements in section 1.20 "Fall Hazards" of this document • Personnel must not exit an elevated basket
Damage to elevated Aerial Platform Basket / Boom or injury from misuse.	• Know the capacity and operating characteristics of your aerial platform • Read & understand the Owners/Operators Manual • Do not overload the platform • Inspect your machine before use as specified by the manufacture and document the inspection • Check the work area for hazards that might cause tip-over • Check your path of travel --ABOVE, BELOW, AND ALL AROUND -- for hazards • Maintain specified distance form electrical power lines and apparatus. (Minimum of 10-feet) • Keep others away from your work area, barricade, and post signs in area below • Never modify platform for any reason • If machine is left unattended, lower platform and secure in safe manner • Make certain all guards, railings, covers and safety signs are in place • Manlift shall not be used to access any heavy equipment that is running or capable of being moved • Manlift shall not access any heavy equipment until such equipment is effectively secured and brakes are set • Inspect & maintain all hydraulic hoses, cylinders and control wires
Injury to personnel in area	• Ensure that personnel don't access the area below any elevated work activity. Use spotters or barricade the area • Construction Management must monitor any water use from an elevated platform, as water spray may carry beyond the work controlled or radiological boundaries

1.39 WINTER OPERATIONS

Winter weather can limit construction operations through additional hazards presented by cold temperatures in conjunction with variable winds, precipitation, and snowy or icy accumulations.

When activities occur during the winter months, additional controls will be required to ensure worker safety. Icy conditions will be a major concern during cold weather fieldwork. CMT shall confirm that field conditions are safe prior to beginning work. This includes walking down active work areas prior to starting work. Winter weather is very unpredictable and the CMT must continuously evaluate field conditions for worker safety. Work scheduled during the winter requires that the following considerations be integrated into work plans and scheduling to maintain worker safety during these periods.

Hazard	Mitigator/Control
Cold Stress	• Refer to section 1.29 "Heat and Cold Stress" of this document
Icy build-up resulting from precipitation and/or use of water sources in freezing conditions	• Clear snow and ice from walking and working surfaces prior to performing work in those areas, and continue to maintain the areas in a safe condition • Mechanical or approved chemical means will be used to remove and control ice • Mechanical means include manual scraping with hand tools or surface manipulation using heavy equipment (i.e. back-dragging area with dozer blade) • Granular calcium chloride or other acceptable deicing agent will be available at necessary locations • Sand applications may be included to improve traction • Periodically assess workplace conditions for slipping hazards, and when necessary barricade icy areas until the hazard is abated • Maintain tools and supplies in storage away from freezing walkways and working surfaces
Slip/trip/fall on travel paths, and on working surfaces	• CMT will conduct workplace assessments at the start of each workday and following the advent of severe winter weather as needed to identify slippery conditions and slip potentials on walkways, roadways, and in the work area before starting or resuming field operations • Provide personnel transportation and maintain passable walkways between work site and heated break locations
Slippery access points on heavy and specialized equipment	• Assess heavy equipment to be involved in winter work for ease of access and presence of sufficiently-sized and located no-skid surfaces, then recommend improvements if necessary • Do not access or allow others to access snow- or ice-covered equipment until the points of access have been cleared
Hazardous atmospheres from use of portable generators or heaters, and idling heavy equipment or vehicles	• CMT shall request that IH assess potential accumulation of exhaust fumes or resultant hazardous atmospheres • When possible, keep fuel-fired equipment outdoors
Use of temporary enclosures for decontamination and/or general protection from cold weather	• Enclosure supporting structure shall be constructed of noncombustible or approved fire retardant materials or the construction shall be approved by the site Fire Protection Department • The coverings for walls, floors, and ceilings shall be noncombustible or approved fire retardant materials • The enclosure and an area of ten feet around the enclosure shall be posted as "no smoking" areas • Non-containerized combustible materials shall not be stored in the area surrounding temporary enclosures; however 5-gallon safety cans for one day's supply is permitted • Non-containerized combustible materials used within the operation of an enclosure shall be removed immediately after use or transported to and stored in approved metal containers with lids. All combustible waste shall be removed from the enclosure after each work shift

Hazard	Mitigator/Control
	• Exits shall be kept unobstructed at all times • Portable fire extinguishers shall be positioned for easy visibility and access, when the need is determined by site Fire Protection • Site Fire Protection shall approve all temporary enclosures that are to be occupied • Engineering shall evaluate structural design adequacy of occupied temporary enclosures relative to snow loading/collapse and other like concerns
Temporary heating	• Any fuel-fired heating device shall be reviewed for the need of a Fluor Fernald Open Flame & Welding Permit by S/HR before use • As appropriate, barricade immediate area of heater output • Fuel storage shall meet/exceed NFPA requirements • Ensure portable heaters are "UL", "FM" or "AGA" certified/listed for their intended use, and not modified for other applications. Only use heaters in accordance with the manufacturer's recommendations regarding adequate ventilation, clearance and other defined hazards • Fluor Fernald Safety shall evaluate and approve work activities involving fuel-fired heaters prior to their use • S/HR may request that IH assess potential accumulation of exhaust fumes or resultant hazardous atmosphere
Deployment of insulating blankets	• Refer to section 1.21 "Back Injury Prevention/Manual Lifting" of this document • Refer to section 1.19 "Rigging and Lifting" of this document
Severe winter weather event	• Refer to "Inclement Weather" in section 1.22, "General Physical Hazards" of this document • Preparatory actions for severe winter weather include: – Verify all crews are suitably equipped for emergency communications – Advanced notification to crews during daily safety meetings and/or by radio – CM limits or suspends work scope, as appropriate, based upon existing and forecasted weather and its anticipated impact on operations – Stage sufficient controls for ice or snow removal, or for improved traction during any work in those conditions – Assure adequate cold stress controls are available based upon anticipated project activities during and immediately following a severe winter weather event including: ▪ Adequate cold-weather PPE ▪ Back-up changes of clothing (worker furnished) ▪ Emergency notification and personnel transportation capabilities ▪ Heated break locations; sufficiently sized, equipped, and accessible

ATTACHMENT D

WEATHER DATA

(December through March - 1998 through 2003)

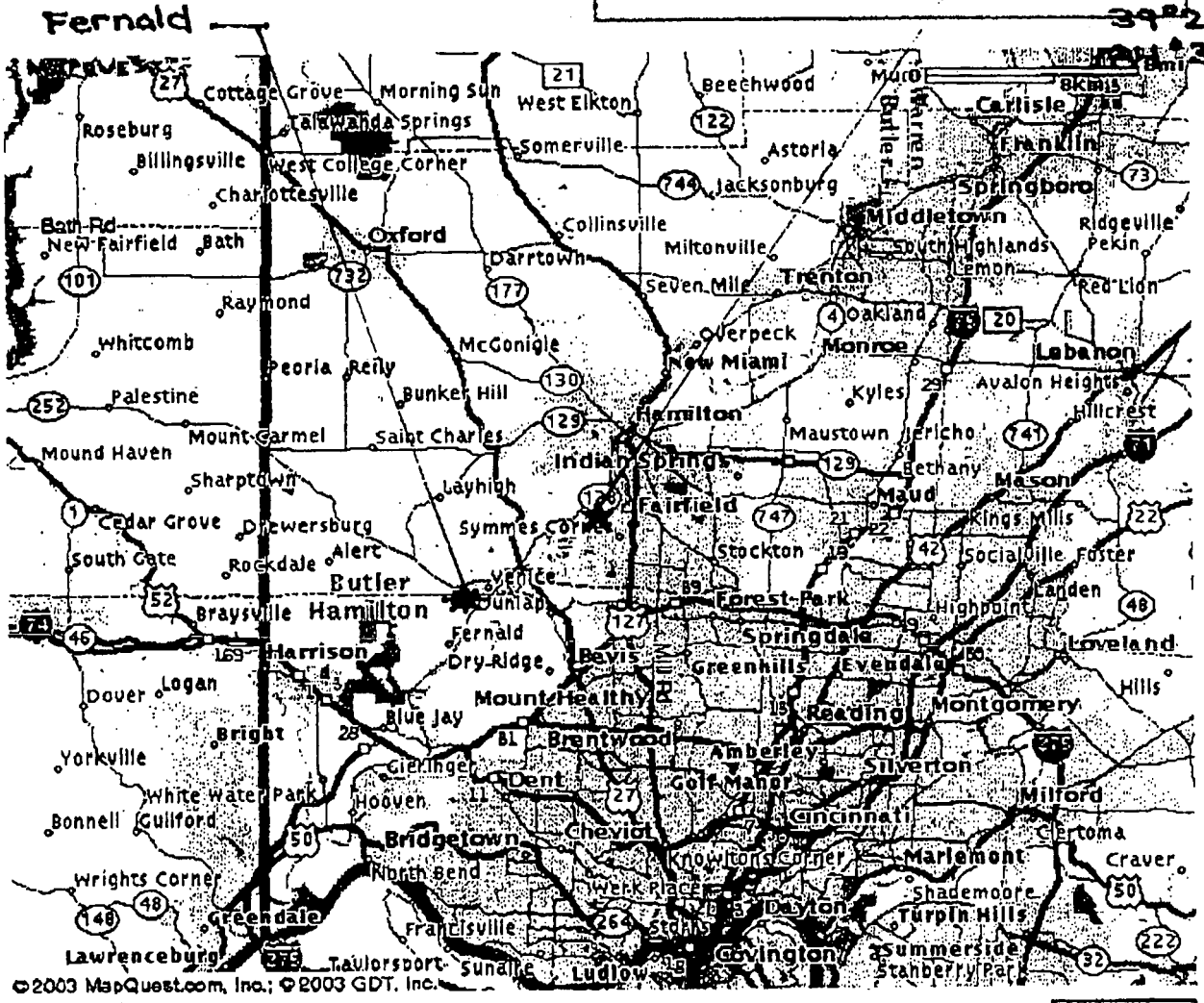
MAPQUEST.

Send To Printer Back to Map

Notes:

5784

Fairfield Weather Stat
39°21'N
84°35'W



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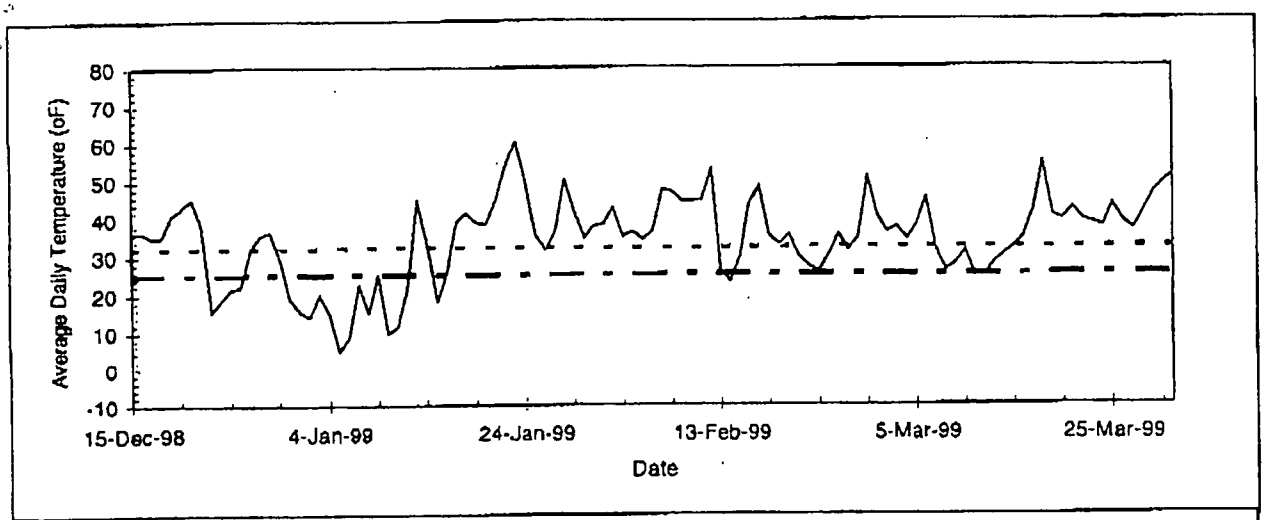
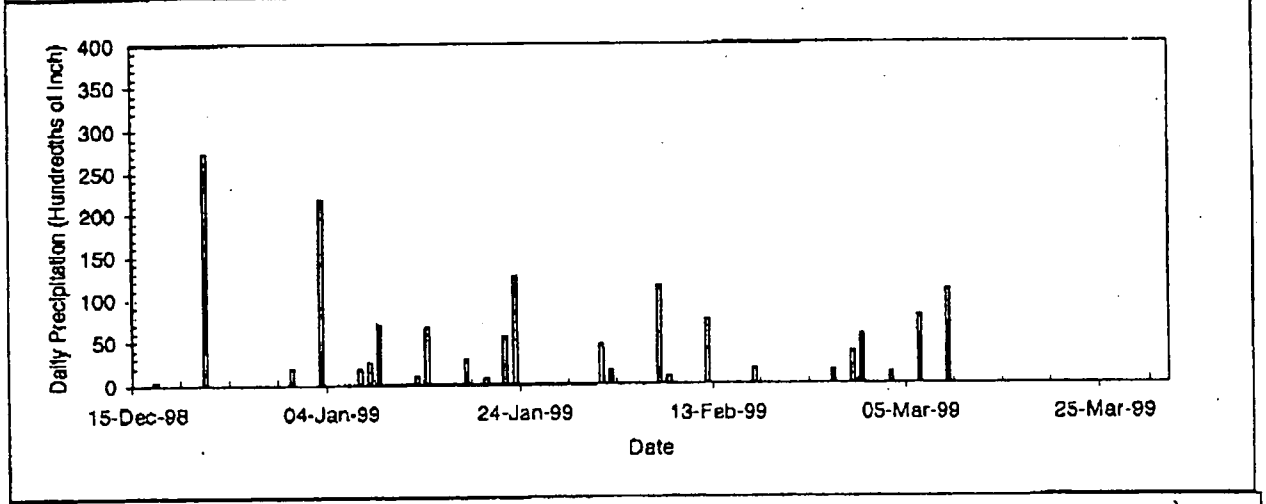
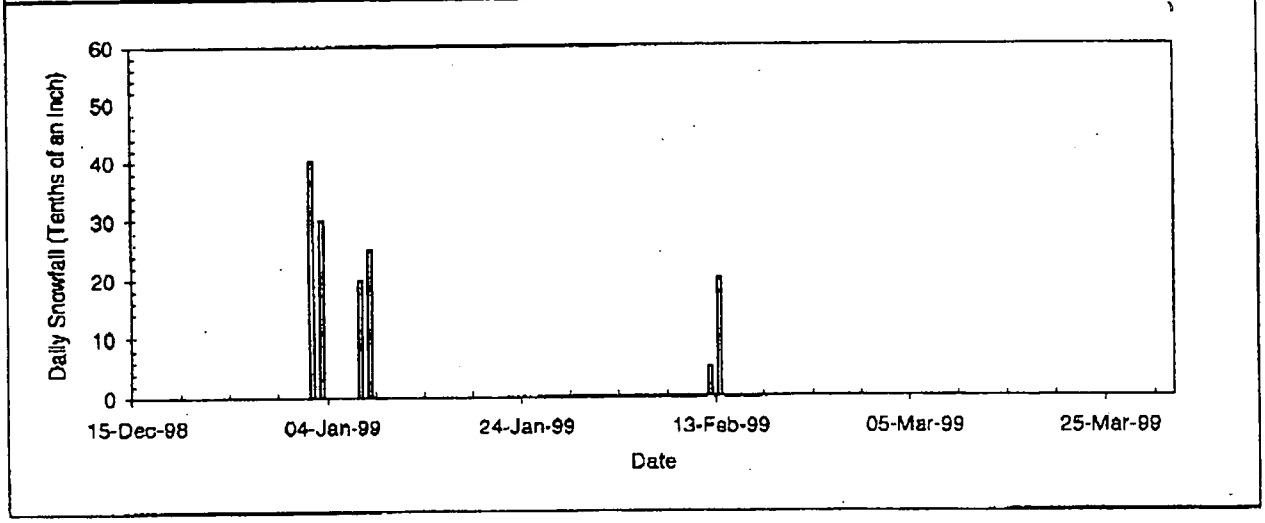
Weather Data
Winter 98-99







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Weather Data
Winter 99-00

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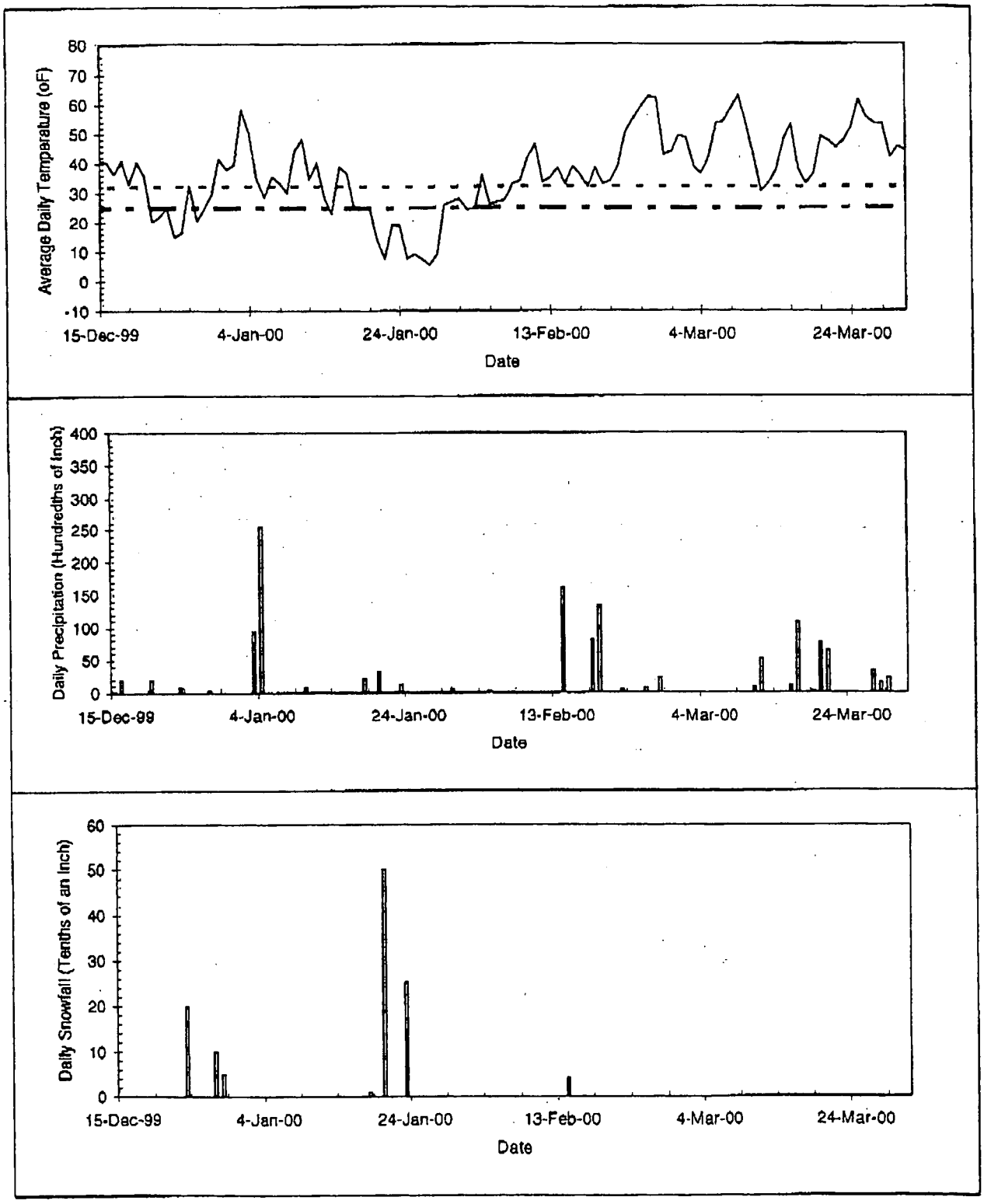

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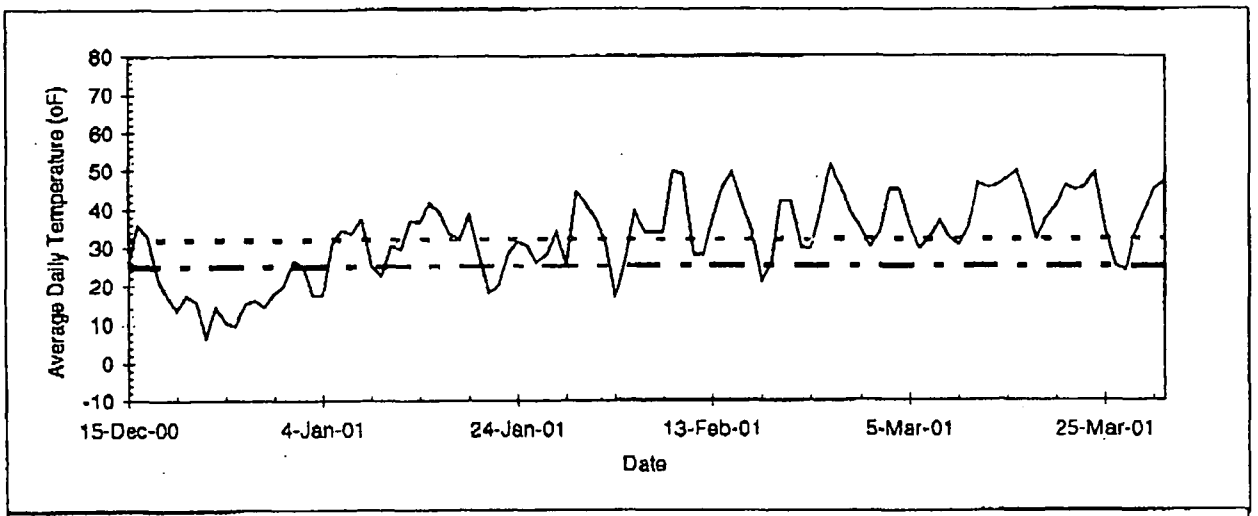
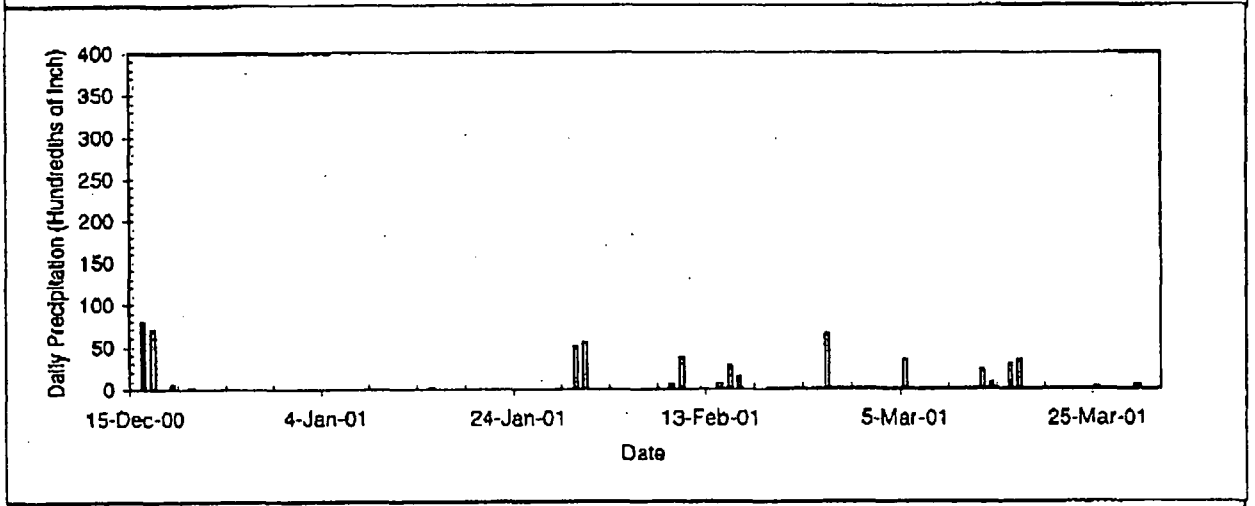
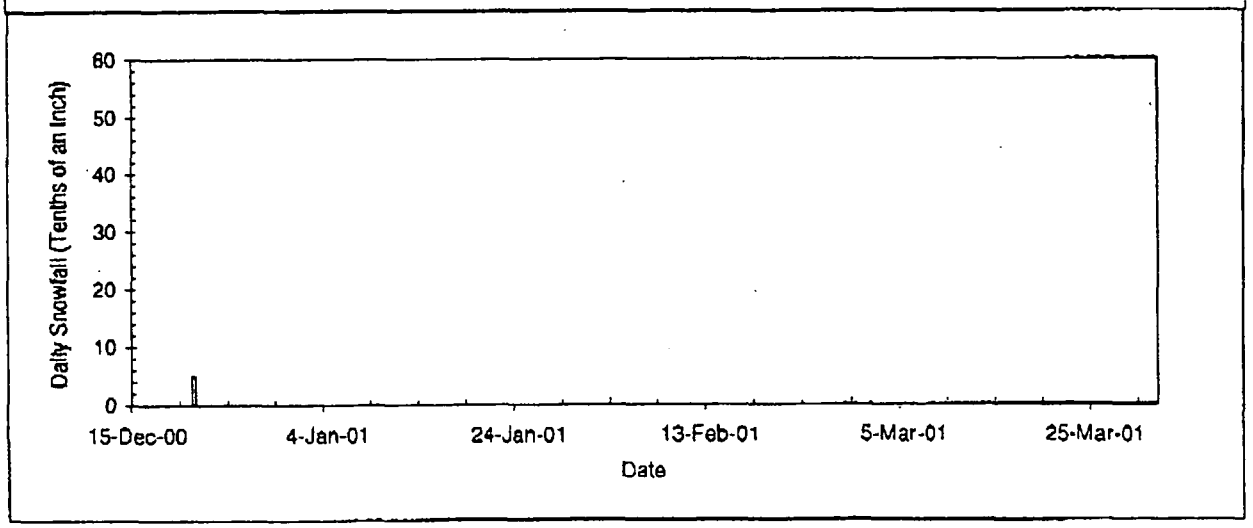
Weather Data
Winter 00-01







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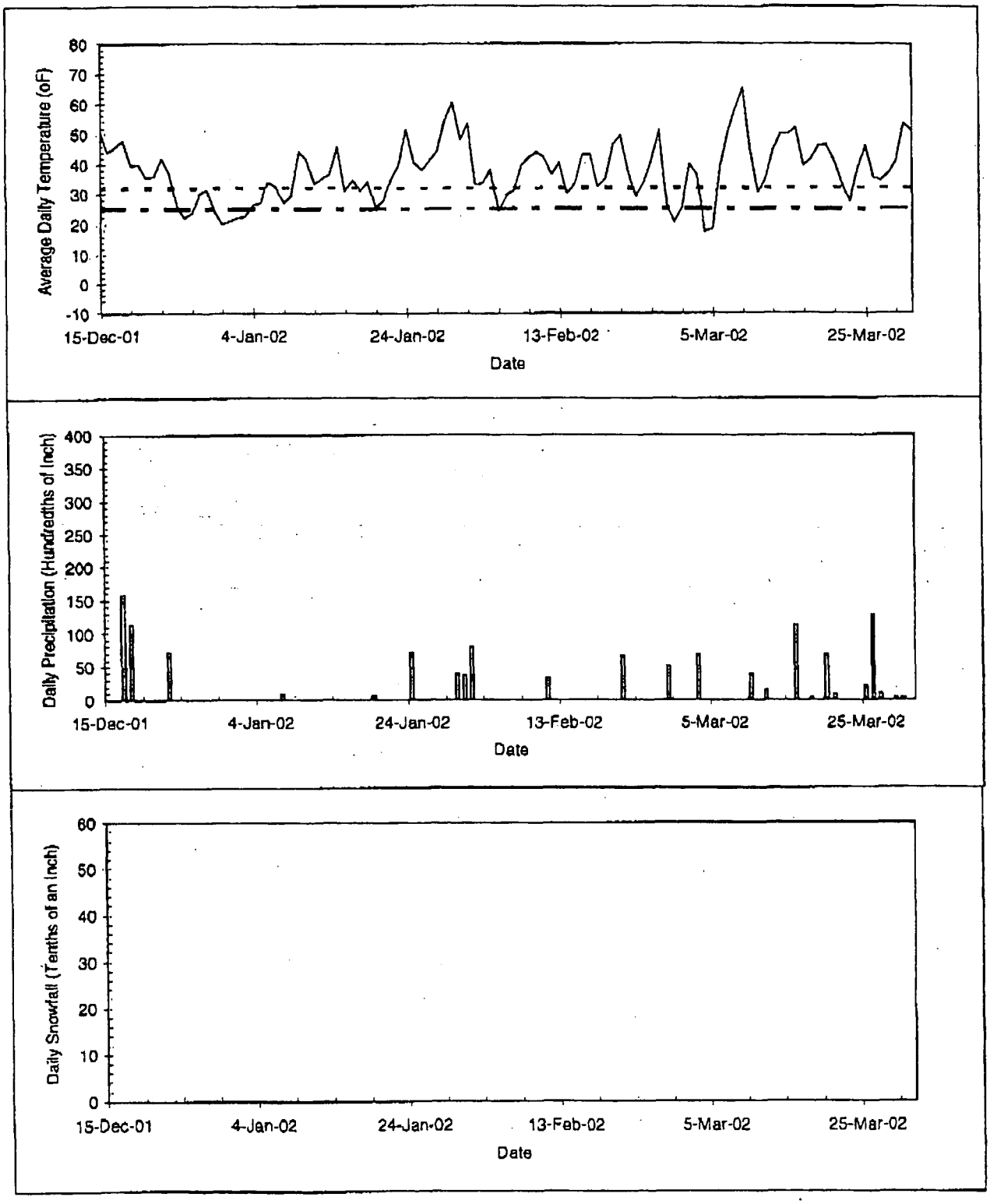
Weather Data
Winter 01-02

5784



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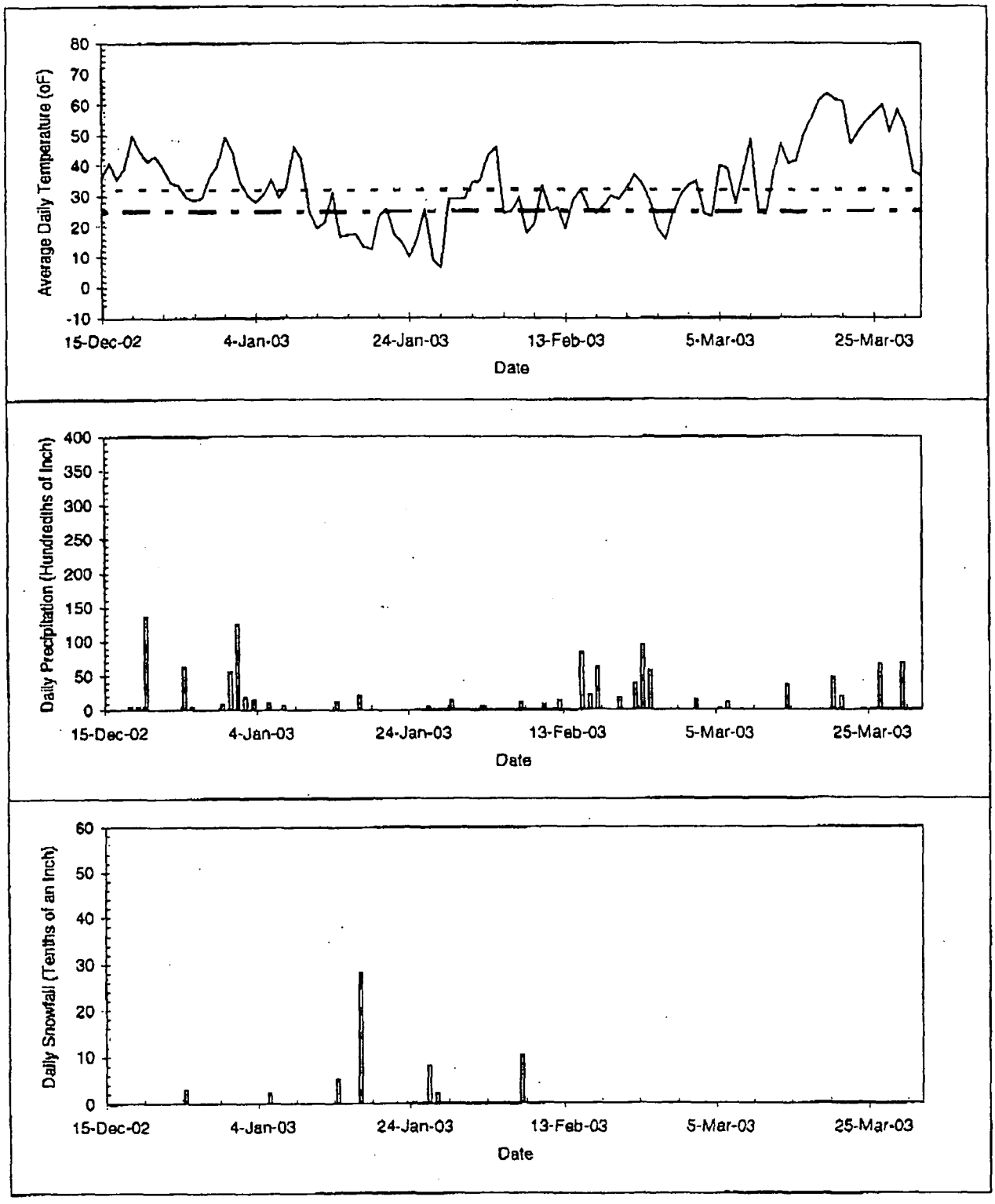
Weather Data
Winter 02-03



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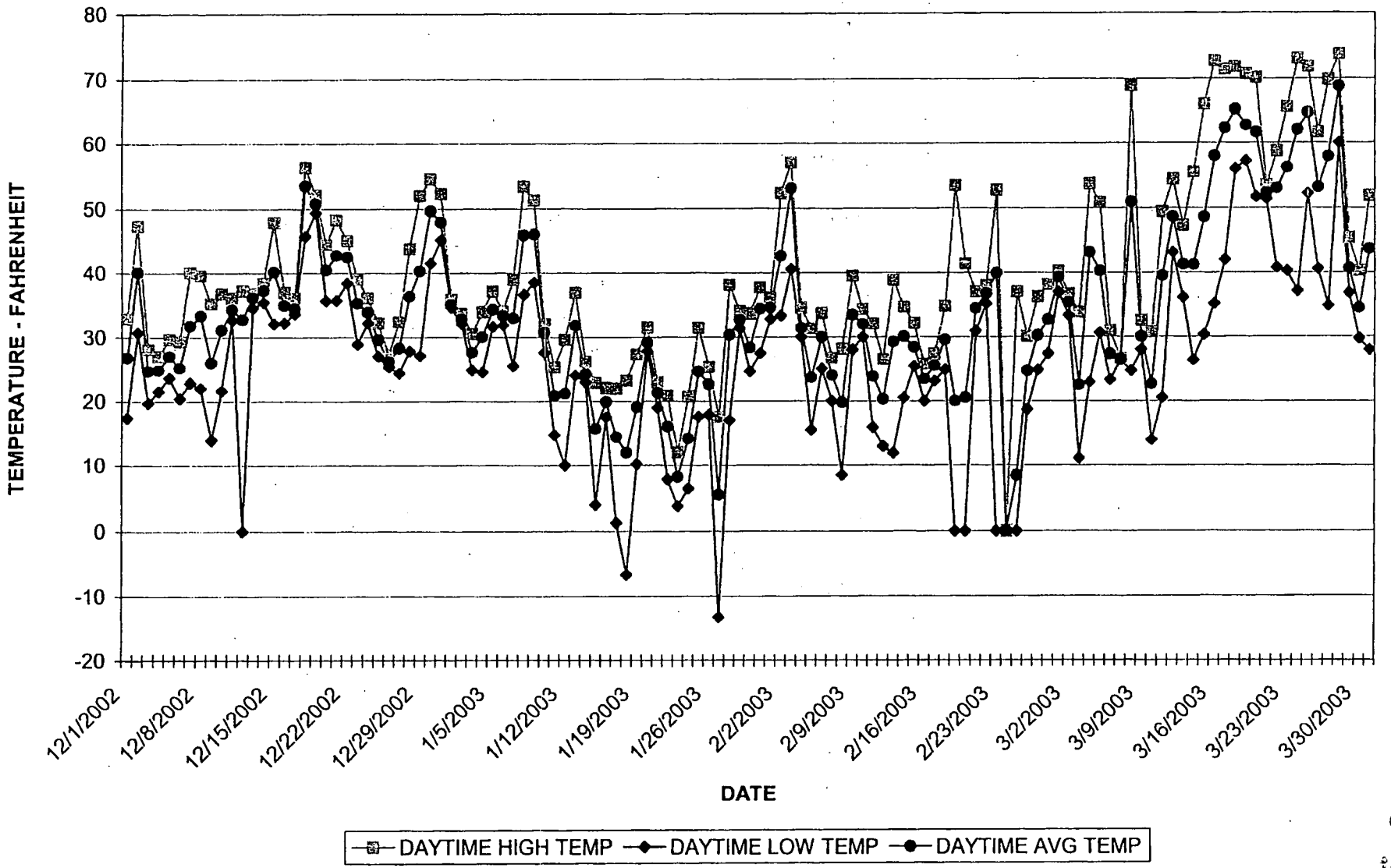
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-10
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12/15/2002
12/22/2002
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2/23/2003
3/2/2003
3/9/2003
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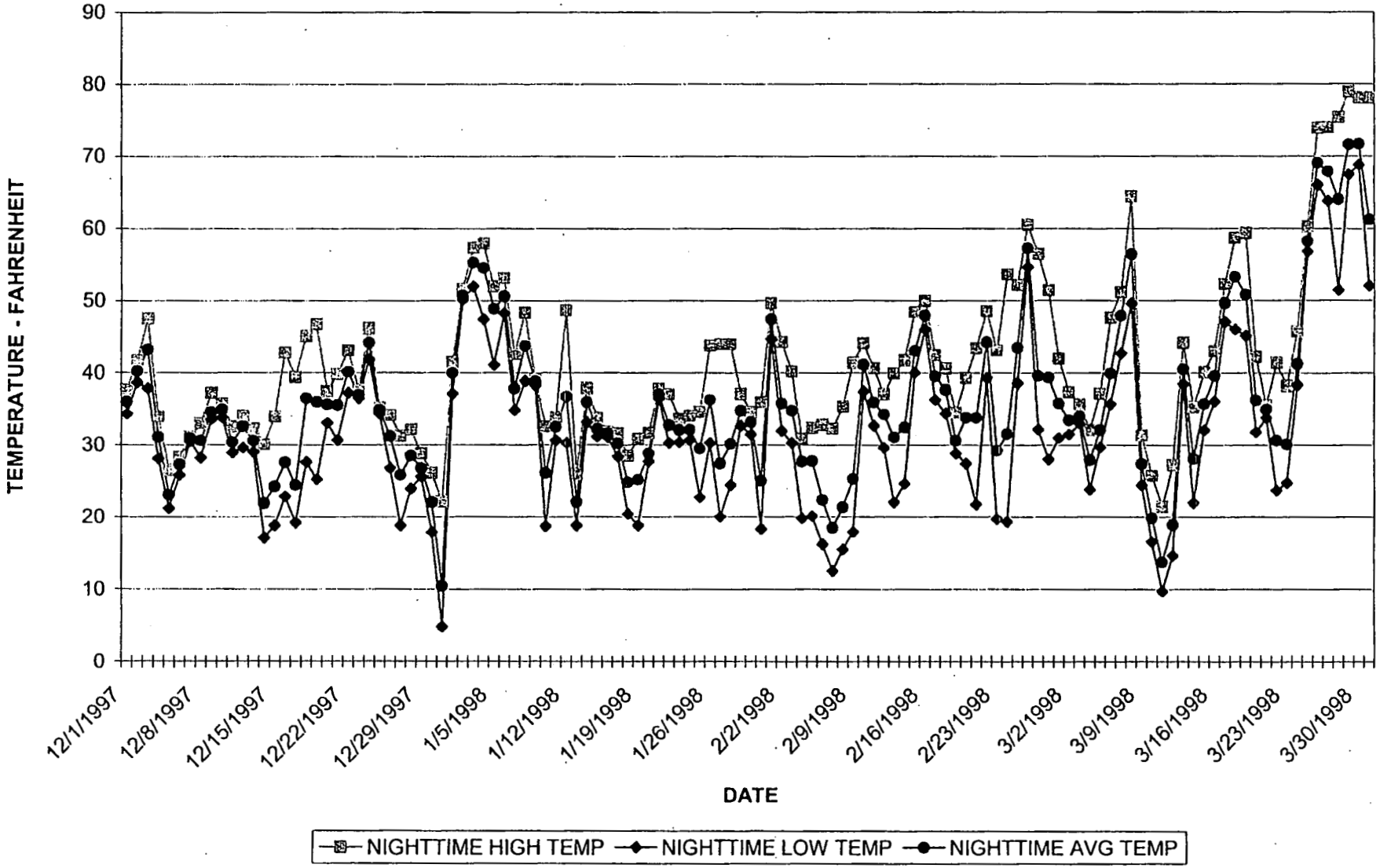
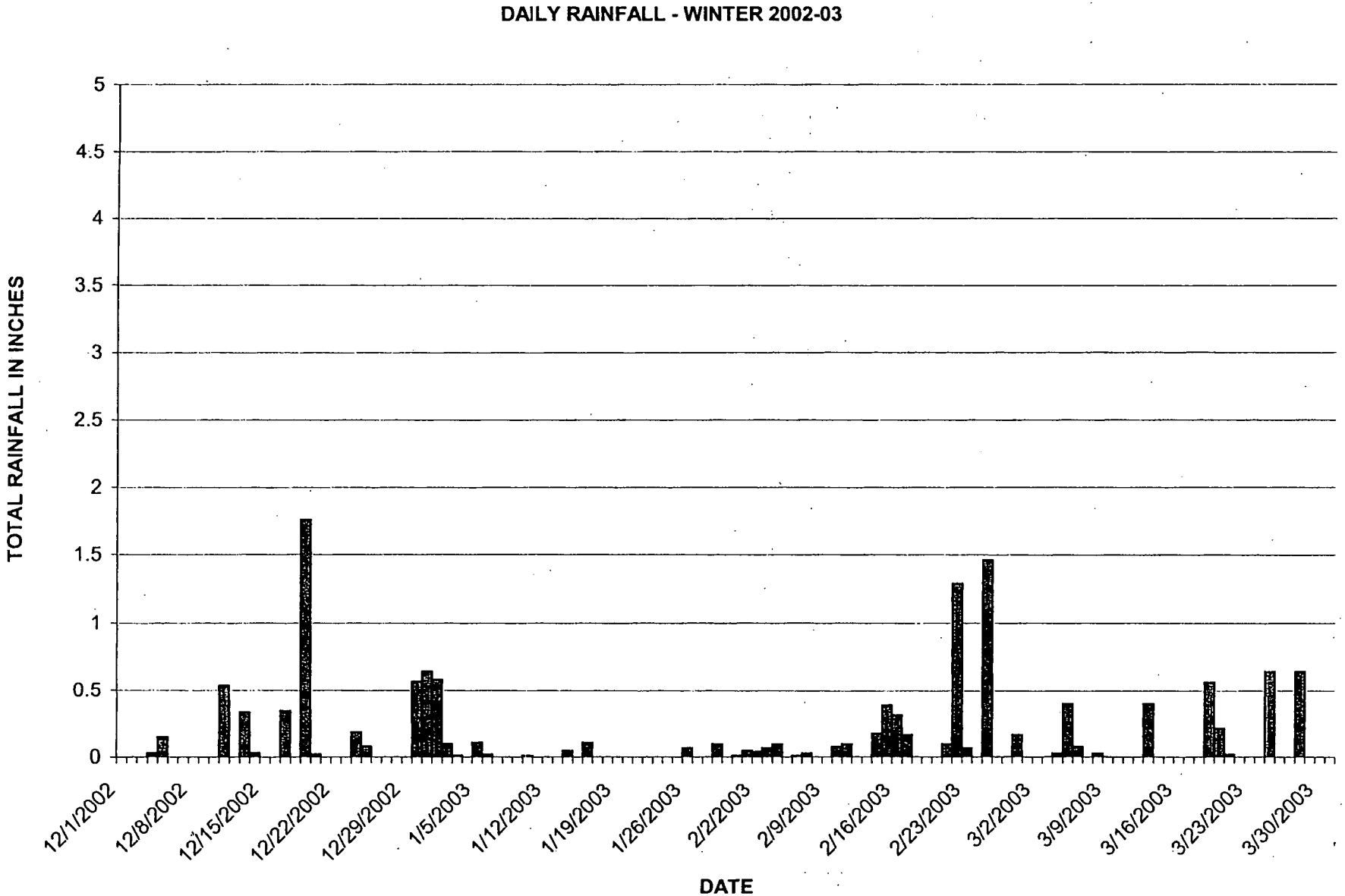
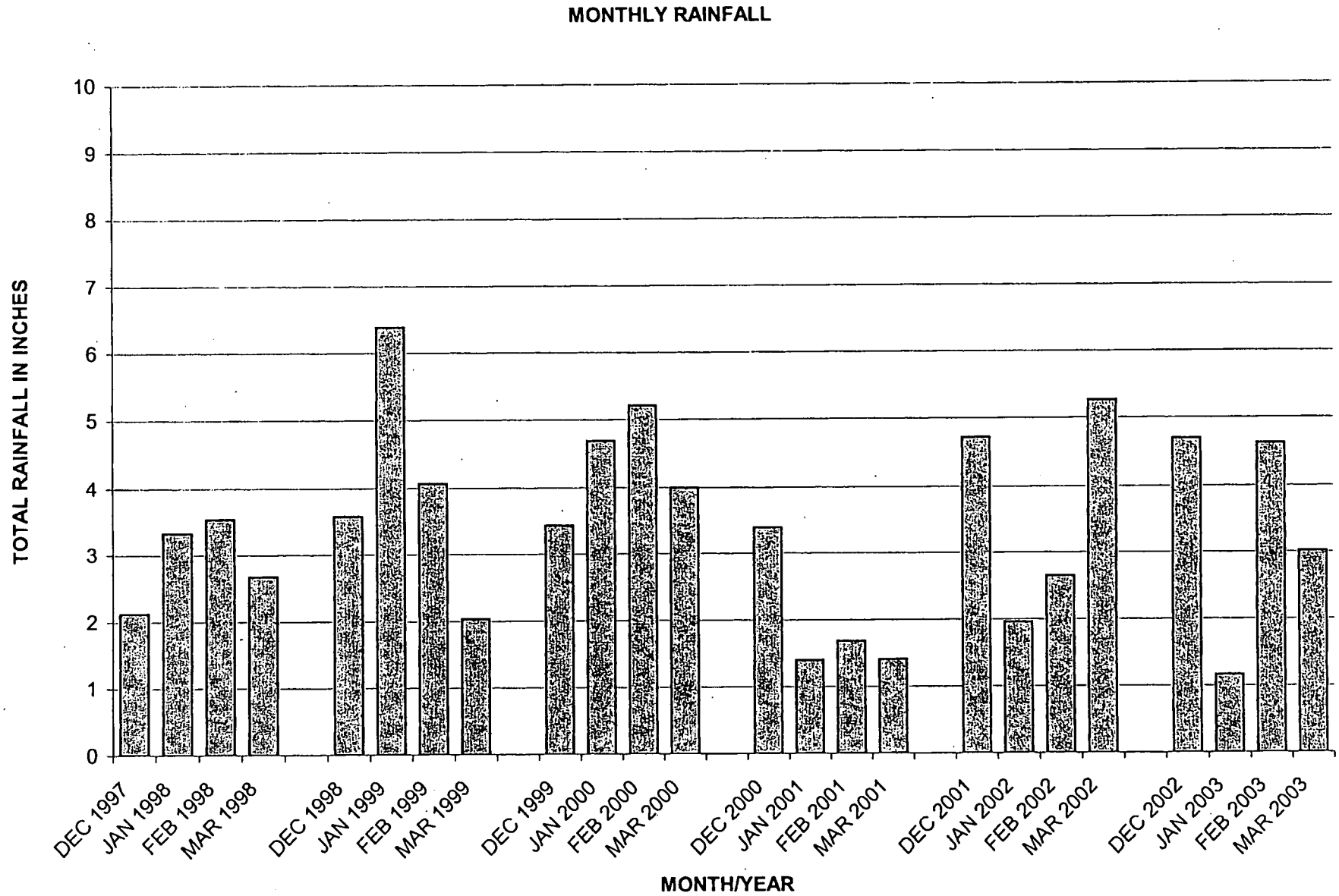
DATE
DAYTIME HIGH TEMP
DAYTIME LOW TEMP
DAYTIME AVG TEMP

NIGHTTIME TEMPS - WINTER 1997-98




DAILY RAINFALL - WINTER 2002-03
TOTAL RAINFALL IN INCHES
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
12/1/2002
12/8/2002
12/15/2002
12/22/2002
12/29/2002
1/5/2003
1/12/2003
1/19/2003
1/26/2003
2/2/2003
2/9/2003
2/16/2003
2/23/2003
3/2/2003
3/9/2003
3/16/2003
3/23/2003
3/30/2003
DATE


MONTHLY RAINFALL
TOTAL RAINFALL IN INCHES
0
1
2
3
4
5
6
7
8
9
10
DEC 1997
JAN 1998
FEB 1998
MAR 1998
DEC 1998
JAN 1999
FEB 1999
MAR 1999
DEC 1999
JAN 2000
FEB 2000
MAR 2000
DEC 2000
JAN 2001
FEB 2001
MAR 2001
DEC 2001
JAN 2002
FEB 2002
MAR 2002
DEC 2002
JAN 2003
FEB 2003
MAR 2003
MONTH/YEAR

ATTACHMENT E

DOE LETTER DATED AUGUST 13, 1998 TO U.S. EPA AND OHIO EPA

Department of Energy
Ohio Field Office
Fernald Area Office
P. O. Box 538705
Cincinnati, Ohio 45253-8705
(513) 648-3155

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AUG 13 1998

Mr. James A. Saric, Remedial Project Director
U. S. Environmental Protection Agency
Region 5 - SRF-5J
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

DOE-1097-98

Mr. Thomas Schneider, Project Manager
Ohio Environmental Protection Agency
401 East Fifth Street
Dayton, Ohio 4502-2911

Dear Mr. Saric and Mr. Schneider:

CONTRACT DE-AC24-92OR21972, PROPOSED MILESTONES FOR THE ON-SITE DISPOSAL FACILITY

Reference: DOE-1310-97, J. Reising to J. Saric and T. Schneider, "DOE Responses to U.S. Environmental Protection Agency Comments on Remedial Action Work Plan for the On-Site Disposal Facility."

On August 13, 1997, the Department of Energy (DOE) responded to the U.S. Environmental Protection Agency (U.S. EPA) comments on the Remedial Action Work Plan (RAWP) for the On-Site Disposal Facility (OSDF). A key comment response in the referenced letter established that by August 15 of each year, the DOE would submit a list of proposed enforceable milestones for the OSDF for the upcoming Fiscal Year.

Over the past year, implementation of the Fernald Environmental Management Project (FEMP) remediation strategies for OSDF operations have evolved into generator projects versus the disposal project. The generator projects, Soil Characterization and Excavation Project (SCEP), and Facility Closure and Demolitions Project (FC&DP) provide the feed stock for the waste placement into the OSDF. The OSDF Project is responsible for properly placing the remediation waste. The rate of OSDF construction, operation, and closure is completely dependent upon generation rates for contaminated soil and debris. Enforceable milestones are separately established by the generator projects. As the OSDF is required to meet these generator project milestones, they are indirectly applicable to the

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OSDF with the exception identified below. It should be noted that DOE will commit to immediately initiating and expeditiously completing cell capping operations when waste placement reaches the maximum level as identified in the approved design.

Based on continuing discussions of this issue with your agencies, DOE will agree to the establishment of enforceable milestones for initiation of individual OSDF cell construction as required to maintain consistency with the soil and debris generation rates referenced above. The criterion for establishing a single enforceable milestone for initiation of cell construction is required to continue uninterrupted placement of soil and debris according to the FEMP's baseline. For Fiscal Year 1999, DOE proposes a milestone of July 1, 1999, for initiating Cell 3 construction.

DOE also agrees to seasonal restrictions related to cell liner construction and waste placement activities (please see enclosed proposal). This proposal modifies our previous correspondence of June 19, 1998. DOE offers these restrictions as enforceable requirements at the OSDF. Therefore, DOE proposes to revise the RAWP to reflect these newly created milestones.

If you have any questions, please contact Jay Jalovec at (513) 648-3122.

Sincerely,

Johnny Reising

FEMP:Jalovec

Johnny W. Reising
Fernald Remedial Action
Project Manager

Enclosure:

5

cc w/enclosure:

G. Jablonowski, USEPA-V, SRF-5J
R. Beaumier, TPSS/DERR, OEPA-Columbus
M. Rochotte, OEPA-Columbus
T. Schneider, OEPA-Dayton (3 copies total of enc.)
F. Bell, ATSDR
M. Schupe, HSI GeoTrans
R. Vandegrift, ODH
F. Barker, Tetra-Tech
AR Coordinator, FDF/78

cc w/o enc:

N. Hallein, EM-42/CLOV
D. Pfister, DOE-FEMP
J. Reising, DOE-FEMP
A. Tanner, DOE-FEMP
D. Carr, FDF/52-2
T. Hagen, FDF/65-2
J. Harmon, FDF/90
R. Heck, FDF/2
M. Hickey, FDF/64
S. Hinnefeld, FDF/2
U. Kumthekar, FDF/64
T. Walsh, FDF/65-2
EDC, FDF/52-7

Seasonal Restrictions for Cell Liner Construction and Waste Placement Activities

Proposal

Up to December 31 of a given year, operations at the On-Site Disposal Facility (OSDF), including cell construction and waste placement activities will continue, provided such activities are completed in accordance with all approved design requirements and specifications. In recognition of the enhanced potential for adverse impacts on OSDF liner construction operations due to weather, work related to liner construction will be suspended with appropriate liner protection requirements completed no later than December 31. Work on liner construction may be reinitiated when weather allows required specifications to be met or April 1, which ever is later. During the period from March 1 to March 31, work may be initiated on liner construction with the concurrence of the U. S. Environmental Protection Agency (EPA) and Ohio Environmental Protection Agency (OEPA) if weather allows required specifications to be met. During the period from January 1 through February 28, work could proceed on waste/debris placement operations with the concurrence of EPA and OEPA. The criteria for establishing consensus that OSDF operations can continue during this period will be based solely on the ability to achieve requirements and specifications that could otherwise be impacted by adverse weather.

It is DOE's intent to continue waste placement during this period as weather allows. Accordingly, it is DOE's expectation that a mutually acceptable process will be established that allows for "real time" consensus on the acceptability of continuing placement activities.

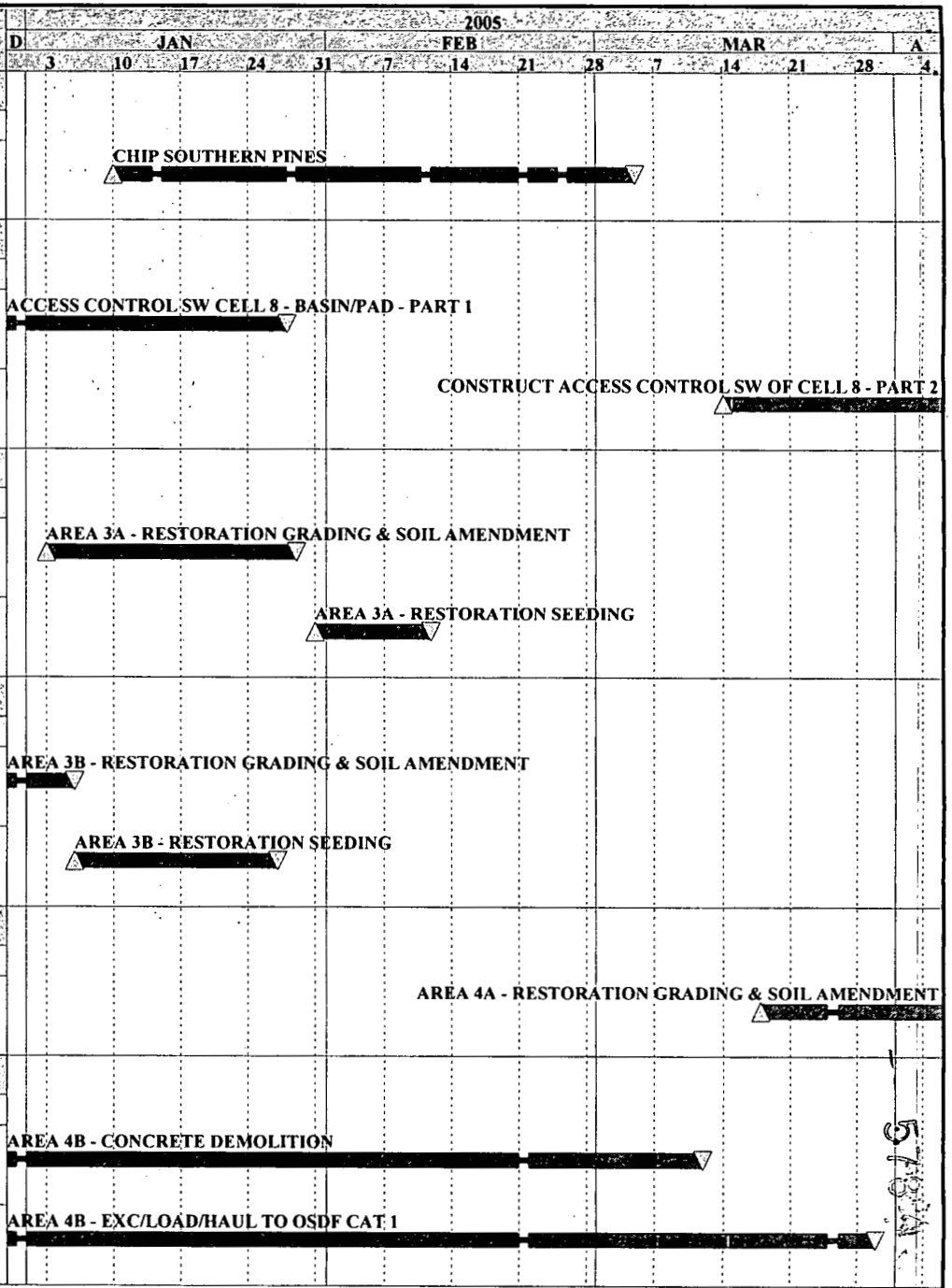
DOE also recognizes the potential for weather related impacts on OSDF operations prior to December 31 in a given year. Accordingly, during clay liner construction activities, if there are four consecutive days where the average temperature is below 32°F (as measured on a time-weighted basis), the continuation of activities will be evaluated. DOE may propose and implement, with the concurrence of EPA and OEPA, any corrective actions that may be required to allow continuation of construction activities without adversely impacting the integrity of the liner. In the absence of proposed corrective action, or concurrence of the regulators on proposed corrective actions, construction will be suspended, with appropriate liner protection requirements completed expeditiously.

The above criterion is based on professional engineering/construction judgement and experience in the Ohio River Valley area. Consultation with the OSDF Construction Quality Control (CQC) contractor indicates the given criterion is very conservative in favor of liner protection.

ATTACHMENT F

WINTER MONTHS CONSTRUCTION SCHEDULE

Activity ID	Activity Description	Orig Dur	Rem Dur	% Comp	Early Start	Early Finish
Area 1						
PBS 06 - SEP PROJECT						
GGNRR60150	CHIP SOUTHERN PINES	35	35	0	10JAN05*	04MAR05
Area 1 - Phase 4						
PBS 03 - ON-SITE DISPOSAL FACILITY						
CCCPL50320	ACCESS CONTROL SW CELL 8 - BASIN/PAD - PART 1	31	31	0	13DEC04	27JAN05
CCCPL50300	CONSTRUCT ACCESS CONTROL SW OF CELL 8 - PART 2	30	30	0	14MAR05*	12APR05
Area 3A						
PBS 06 - SEP PROJECT						
GG3A144190	AREA 3A - RESTORATION GRADING & SOIL AMENDMENT	20	20	0	03JAN05*	28JAN05
GG3A144200	AREA 3A - RESTORATION SEEDING	10	10	0	31JAN05	11FEB05
Area 3B						
PBS 06 - SEP PROJECT						
GG3B1R0010	AREA 3B - RESTORATION GRADING & SOIL AMENDMENT	15	15	5	02DEC04A	05JAN05
GGNRR90010	AREA 3B - RESTORATION SEEDING	15	15	0	06JAN05	26JAN05
Area 4A						
PBS 06 - SEP PROJECT						
GG4A1R0010	AREA 4A - RESTORATION GRADING & SOIL AMENDMENT	29	29	0	18MAR05*	28APR05
Area 4B						
PBS 06 - SEP PROJECT						
GG4B1C0070	AREA 4B - CONCRETE DEMOLITION	257	61	66	01OCT03A	11MAR05
GG4B1E0070	AREA 4B - EXC/LOAD/HAUL TO OSDF CAT 1	291	72	67	20OCT03A	29MAR05



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Finish Date 07APR06
Data Date 12DEC04
Run Date 13DEC04 17:14

Early Bar
Progress Bar
Critical Activity

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FLUOR FERNALD, INC
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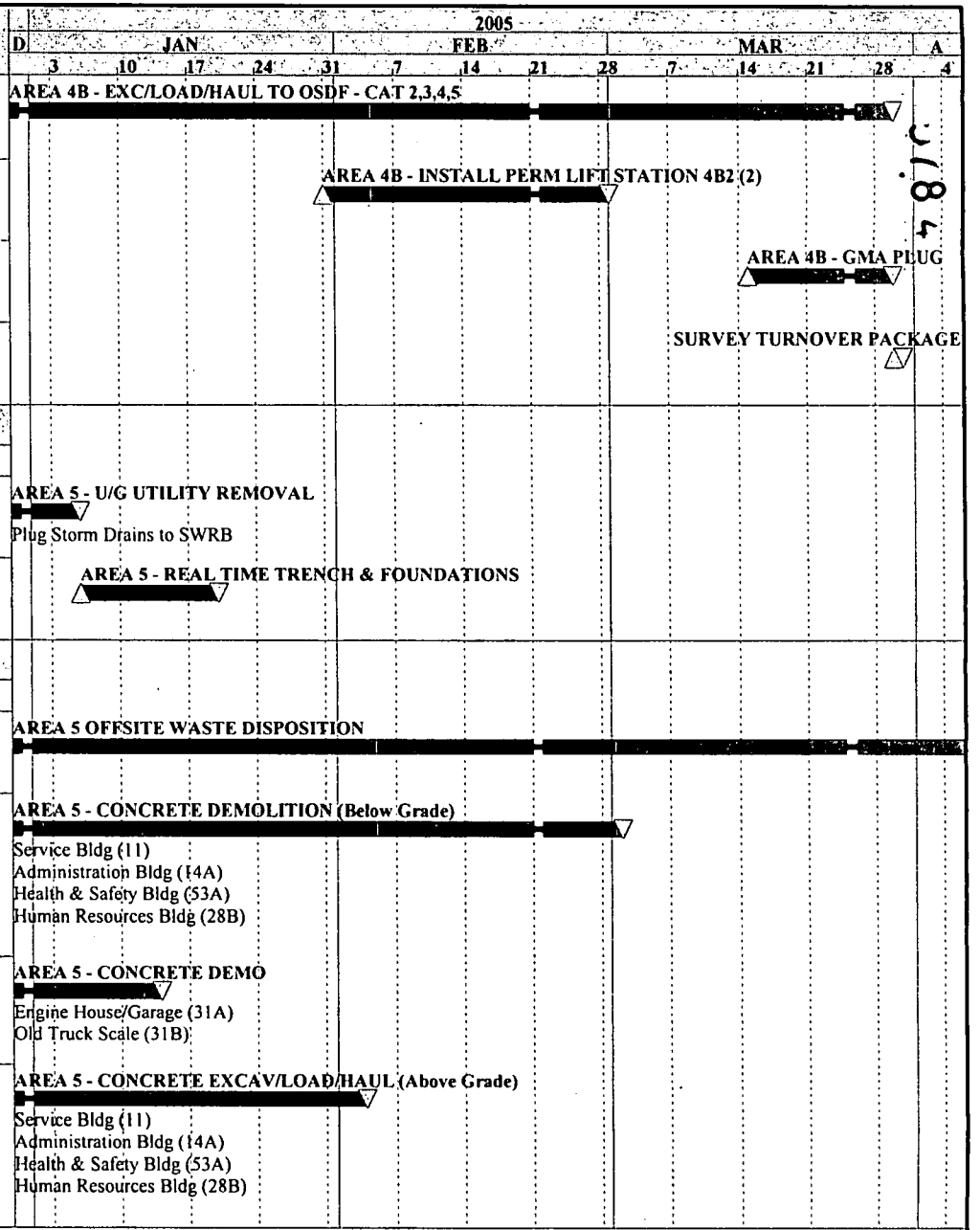
Date	Revision	Checked	Approved

Activity ID	Activity Description	Orig Dur	Rem Dur	% Comp	Early Start	Early Finish
GG4B1E0110	AREA 4B - EXC/LOAD/HAUL TO OSDF - CAT 2,3,4,5	281	72	66	20OCT03A	29MAR05
GG4B1E0230	AREA 4B - INSTALL PERM LIFT STATION 4B2 (2)	20	20	0	31JAN05*	28FEB05
GG4B1E0080	AREA 4B - GMA PLUG	10	10	0	15MAR05*	29MAR05
GG4B1E0085	SURVEY TURNOVER PACKAGE	1	1	0	30MAR05*	30MAR05
EPL - Area 5 East Parking Lot						
PBS 06 - SEP PROJECT						
GG511E0130	AREA 5 - U/G UTILITY REMOVAL	10	10	0	20DEC04	05JAN05
GG511E0120	AREA 5 - REAL TIME TRENCH & FOUNDATIONS	10	10	0	06JAN05	19JAN05
ADM - Area 5 Administration Area						
PBS 06 - SEP PROJECT						
GGCHRW084	AREA 5 OFFSITE WASTE DISPOSITION	107	107	0	13DEC04	17MAY05
GG511C1040	AREA 5 - CONCRETE DEMOLITION (Below Grade)	53	53	0	13DEC04	01MAR05
GG511C0090	AREA 5 - CONCRETE DEMO	20	20	0	14DEC04*	13JAN05
GG511E0160	AREA 5 - CONCRETE EXCAV/LOAD/HAUL (Above Grade)	30	30	0	21DEC04	03FEB05



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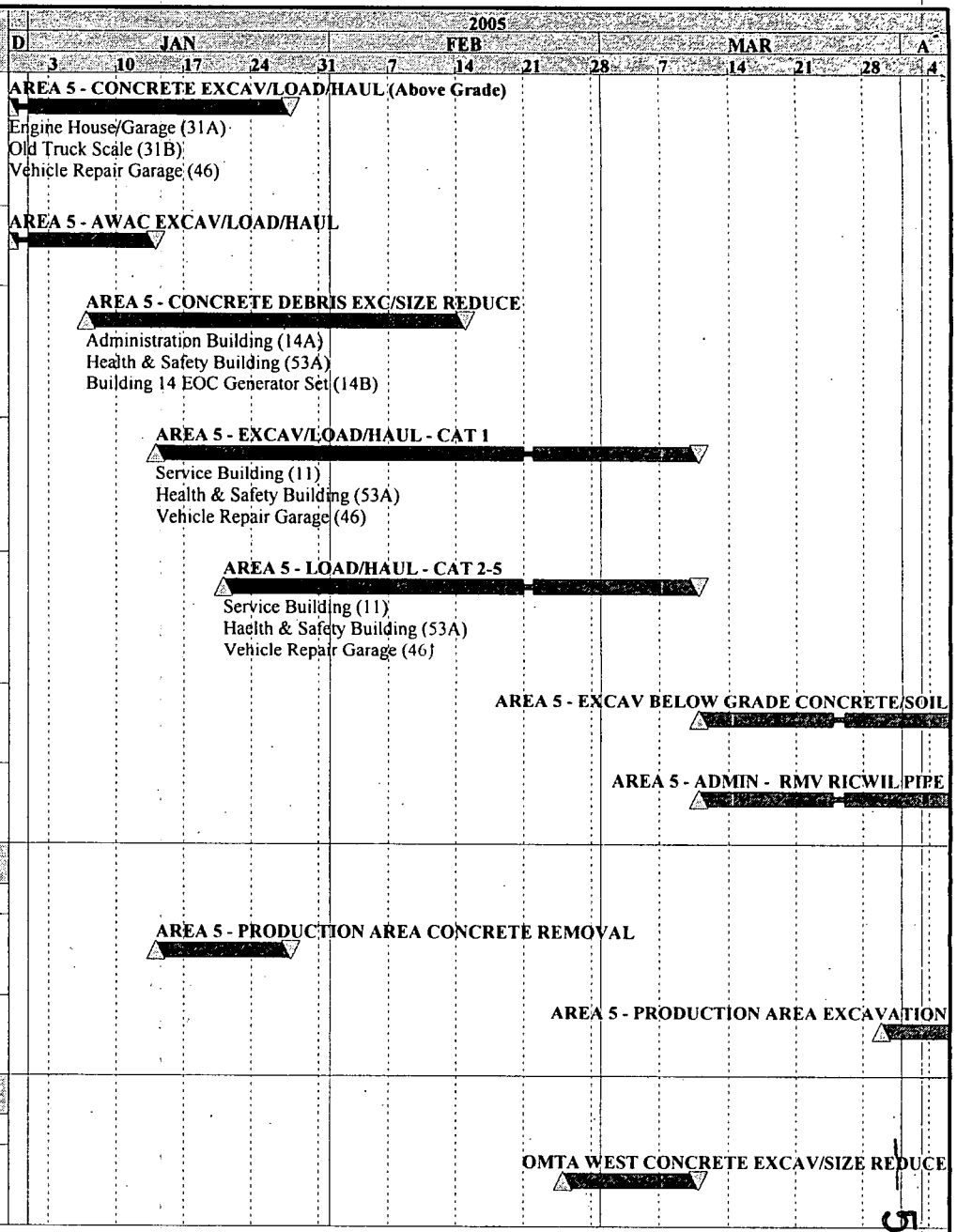
GG511E0150	AREA 5 - CONCRETE EXCAV/LOAD/HAUL (Above Grade)	20	20	0	30DEC04*	27JAN05
GG511E1020	AREA 5 - AWAC EXCAV/LOAD/HAUL	126	10	0	30DEC04	13JAN05
GG511C0010	AREA 5 - CONCRETE DEBRIS EXC/SIZE REDUCE	27	27	0	07JAN05	14FEB05
GG511E0080	AREA 5 - EXCAV/LOAD/HAUL - CAT 1	39	39	0	14JAN05	10MAR05
GG511E0090	AREA 5 - LOAD/HAUL - CAT 2-5	34	34	0	21JAN05	10MAR05
GG511E0100	AREA 5 - EXCAV BELOW GRADE CONCRETE/SOIL	20	20	0	11MAR05	08APR05
GG511E0115	AREA 5 - ADMIN - RMV RICWIL PIPE	20	20	0	11MAR05	08APR05
PROD - Area 5 Production Area						
PBS 06 - SEP PROJECT						
GG511C0210	AREA 5 - PRODUCTION AREA CONCRETE REMOVAL	10	10	0	14JAN05	27JAN05
GG511E0210	AREA 5 - PRODUCTION AREA EXCAVATION	20	20	0	30MAR05	26APR05
6B - Area 6 OMTA Northwest						
PBS 06 - SEP PROJECT						
GG6PAC0050	OMTA WEST CONCRETE EXCAV/SIZE REDUCE	10	10	0	25FEB05*	10MAR05



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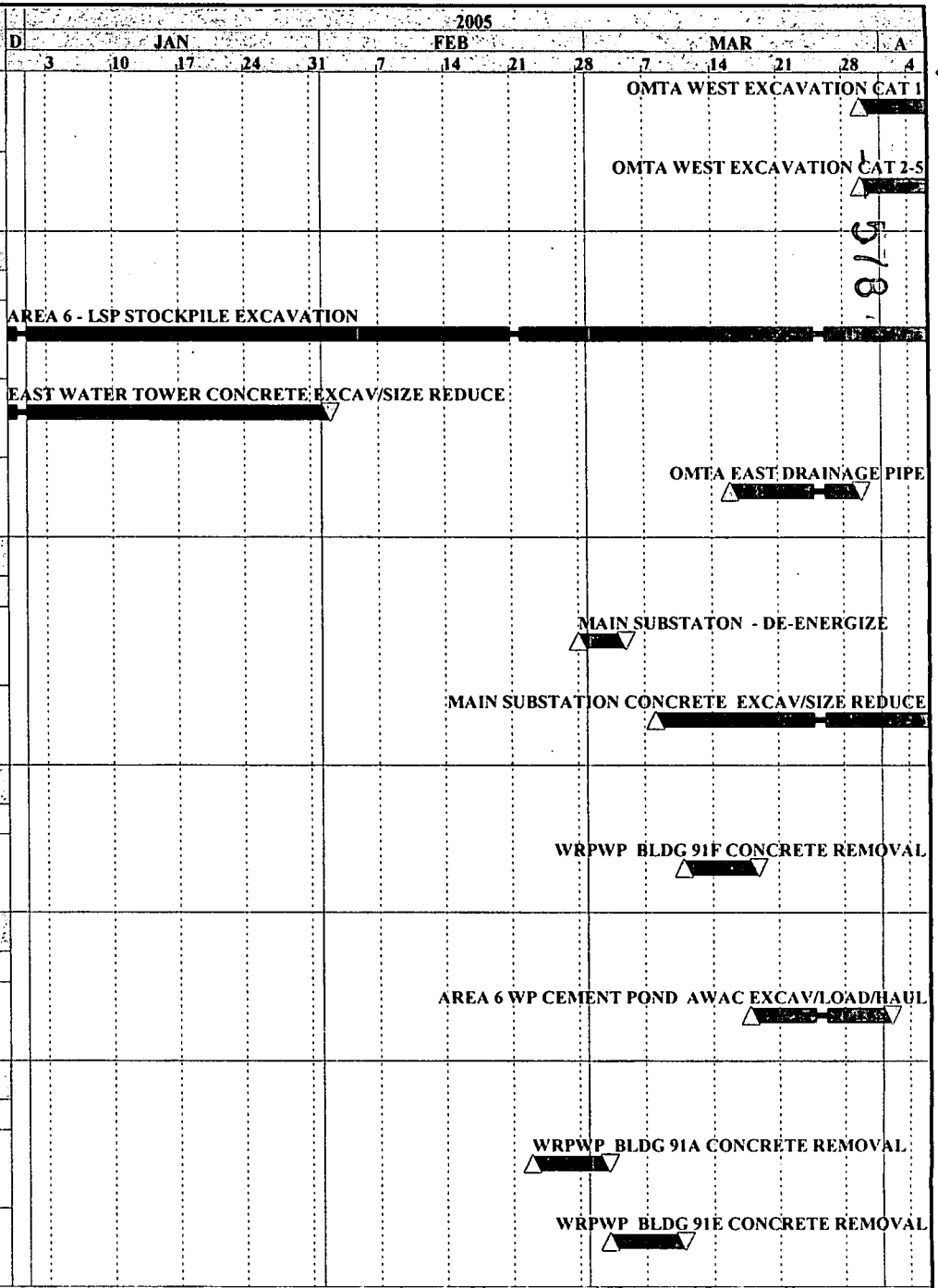
Activity ID	Activity Description	Orig Dur	Rem Dur	% Comp	Early Start	Early Finish
GG6PAE0050	OMTA WEST EXCAVATION CAT 1	20	20	0	30MAR05*	26APR05
GG6PAE0250	OMTA WEST EXCAVATION CAT 2-5	20	20	0	30MAR05	26APR05
6D - Area 6 OMTA East						
PBS 06 - SEP PROJECT						
GGSLH11010	AREA 6 - LSP STOCKPILE EXCAVATION	46	95	0	26JUN03A	29APR05
GG6PAC0090	EAST WATER TOWER CONCRETE EXCAV/SIZE REDUCE	25	25	0	28DEC04	01FEB05
GG6PAW0180	OMTA EAST DRAINAGE PIPE	9	9	0	16MAR05*	29MAR05
6E - Area 6 Main Substation						
PBS 06 - SEP PROJECT						
GG6PAE0165	MAIN SUBSTATON - DE-ENERGIZE	5	5	0	28FEB05*	04MAR05
GG6PAC0030	MAIN SUBSTATION CONCRETE EXCAV/SIZE REDUCE	29	29	0	08MAR05	18APR05
6G - Area 6 Bio Surge Lagoon						
PBS 06 - SEP PROJECT						
GG6GAC2230	WRPWP BLDG 91F CONCRETE REMOVAL	6	6	0	11MAR05	18MAR05
6H - Area 6 Solid Waste Landfill						
PBS 06 - SEP PROJECT						
GG6WPE0580	AREA 6 WP CEMENT POND AWAC EXCAV/LOAD/HAUL	10	10	0	18MAR05	01APR05
6J - Area 6 Waste Pits Laydown Area						
PBS 06 - SEP PROJECT						
GG6GAC2210	WRPWP BLDG 91A CONCRETE REMOVAL	6	6	0	23FEB05	02MAR05
GG6GAC2220	WRPWP BLDG 91E CONCRETE REMOVAL	6	6	0	03MAR05	10MAR05



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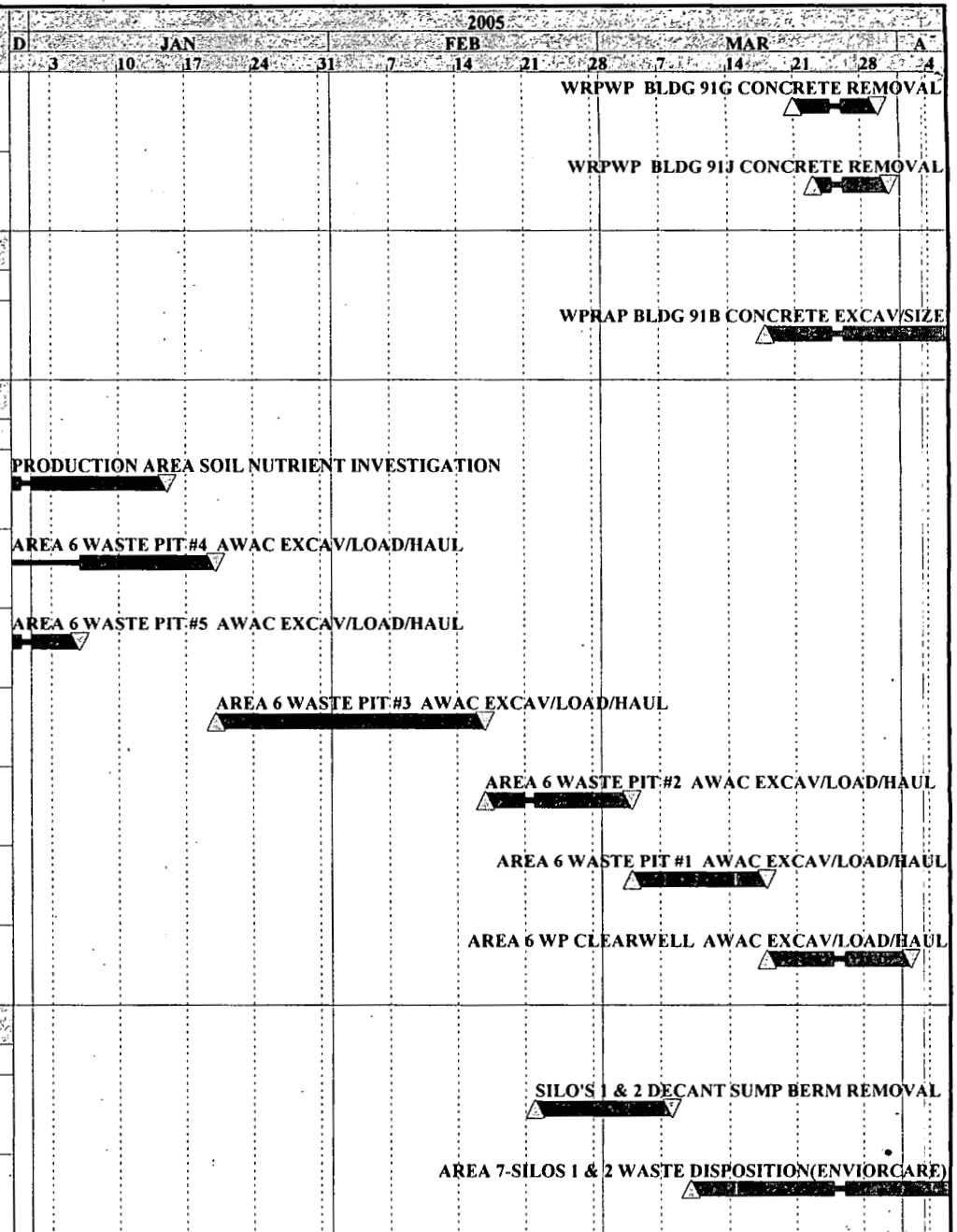
Activity ID	Activity Description	Orig Dur	Rem Dur	% Comp	Early Start	Early Finish
GG6GAC2240	WRPWP BLDG 91G CONCRETE REMOVAL	6	6	0	21MAR05	29MAR05
GG6GAC2290	WRPWP BLDG 91J CONCRETE REMOVAL	5	5	0	23MAR05	30MAR05
6K - Area 6 WPWRP Facility						
PBS 06 - SEP PROJECT						
GG6GAC0220	WPRAP BLDG 91B CONCRETE EXCAV/SIZE	24	24	0	18MAR05	21APR05
6L - Area 6 Waste Pits						
PBS 06 - SEP PROJECT						
GGNRR90110	PRODUCTION AREA SOIL NUTRIENT INVESTIGATION	156	22	0	01MAR04A	14JAN05
GG6WPE0560	AREA 6 WASTE PIT #4 AWAC EXCAV/LOAD/HAUL	15	10	15	24NOV04A	19JAN05
GG6WPE0550	AREA 6 WASTE PIT #5 AWAC EXCAV/LOAD/HAUL	10	10	0	20DEC04	05JAN05
GG6WPE0510	AREA 6 WASTE PIT #3 AWAC EXCAV/LOAD/HAUL	20	20	0	20JAN05	16FEB05
GG6WPE0520	AREA 6 WASTE PIT #2 AWAC EXCAV/LOAD/HAUL	10	10	0	17FEB05	03MAR05
GG6WPE0530	AREA 6 WASTE PIT #1 AWAC EXCAV/LOAD/HAUL	10	10	0	04MAR05	17MAR05
GG6WPE0570	AREA 6 WP CLEARWELL AWAC EXCAV/LOAD/HAUL	10	10	0	18MAR05	01APR05
7A - Area 7 Silos 1 & 2						
PBS 06 - SEP PROJECT						
GG71140155	SILO'S 1 & 2 DECANT SUMP BERM REMOVAL	10	10	0	22FEB05*	07MAR05
GG71140240	AREA 7-SILOS 1 & 2 WASTE DISPOSITION(ENVIORCARE)	20	20	0	10MAR05	07APR05



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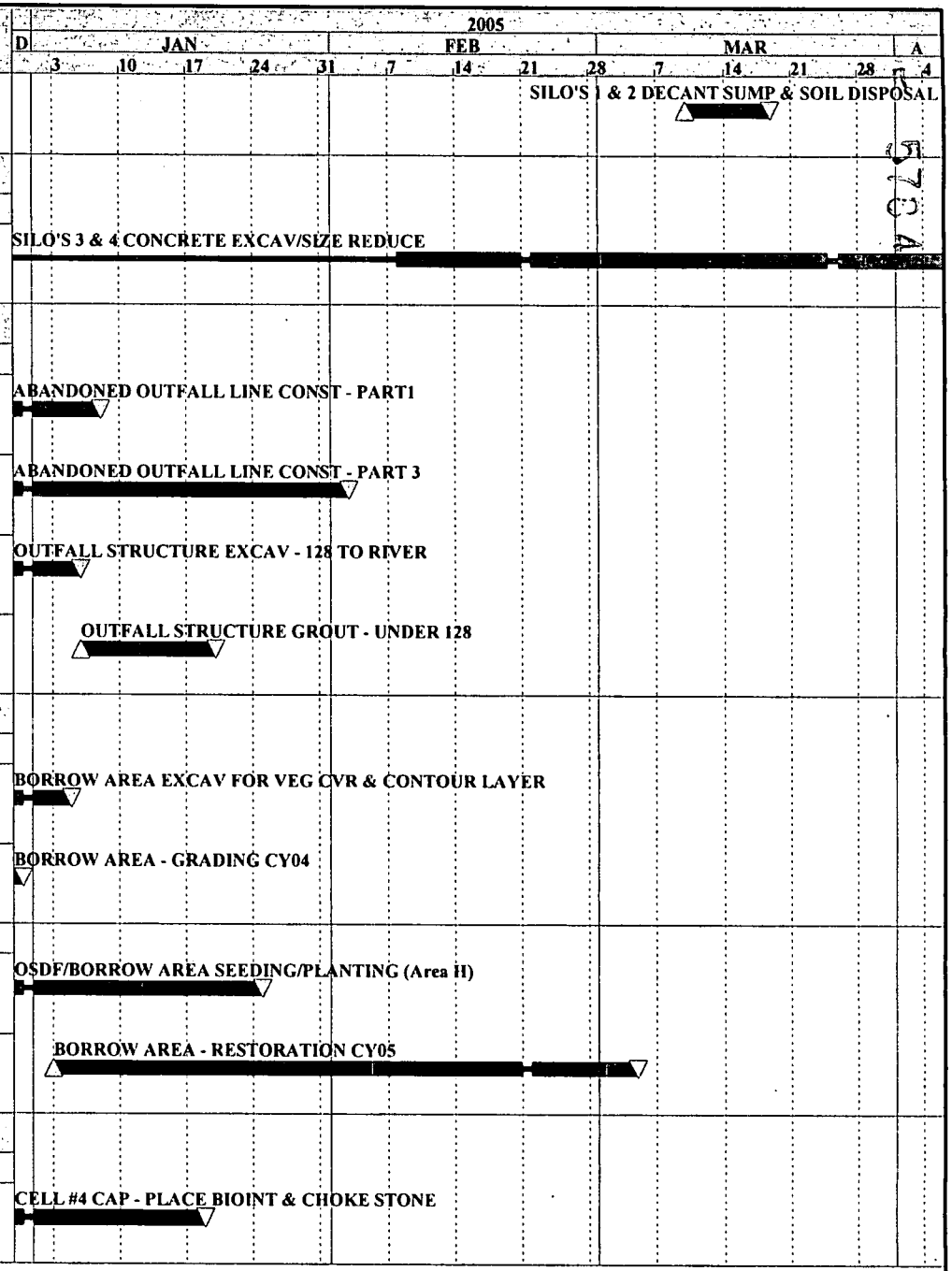
Date	Revision	Checked	Approved

Activity ID	Activity Description	Orig Dur	Rem Dur	% Comp	Early Start	Early Finish
GG71140156	SILO'S 1 & 2 DECANT SUMP & SOIL DISPOSAL	7	7	0	10MAR05	18MAR05
7B - Area 7 Silo 3						
PBS 06 - SEP PROJECT						
GG71140140	SILO'S 3 & 4 CONCRETE EXCAV/SIZE REDUCE	46	116	15	08MAR04A	25JUL05
AOL - Abandoned Outfall Line						
PBS 06 - SEP PROJECT						
GGMEPAH010	ABANDONED OUTFALL LINE CONST - PART1	109	17	90	21JUL04A	07JAN05
GGMEPA1470	ABANDONED OUTFALL LINE CONST - PART 3	40	35	40	17NOV04A	02FEB05
GGMEPA0040	OUTFALL STRUCTURE EXCAV - 128 TO RIVER	20	15	0	02DEC04A	05JAN05
GGMEPA0030	OUTFALL STRUCTURE GROUT - UNDER 128	10	10	0	06JAN05	19JAN05
BOR - Borrow Area						
PBS 03 - ON-SITE DISPOSAL FACILITY						
CCCPL22014	BORROW AREA EXCAV FOR VEG CVR & CONTOUR LAYER	36	14	60	13SEP04A	04JAN05
CCCPL25290	BORROW AREA - GRADING CY04	12	12	0	13DEC04	30DEC04
PBS 06 - SEP PROJECT						
GGNRR70110	OSDF/BORROW AREA SEEDING/PLANTING (Area H)	28	28	0	13DEC04*	24JAN05
GGNRR75010	BORROW AREA - RESTORATION CY05	44	44	0	03JAN05	04MAR05
Cell #4						
PBS 03 - ON-SITE DISPOSAL FACILITY						
CCCPLD5160	CELL #4 CAP - PLACE BIOINT & CHOKE STONE	18	14	50	19NOV04A	18JAN05



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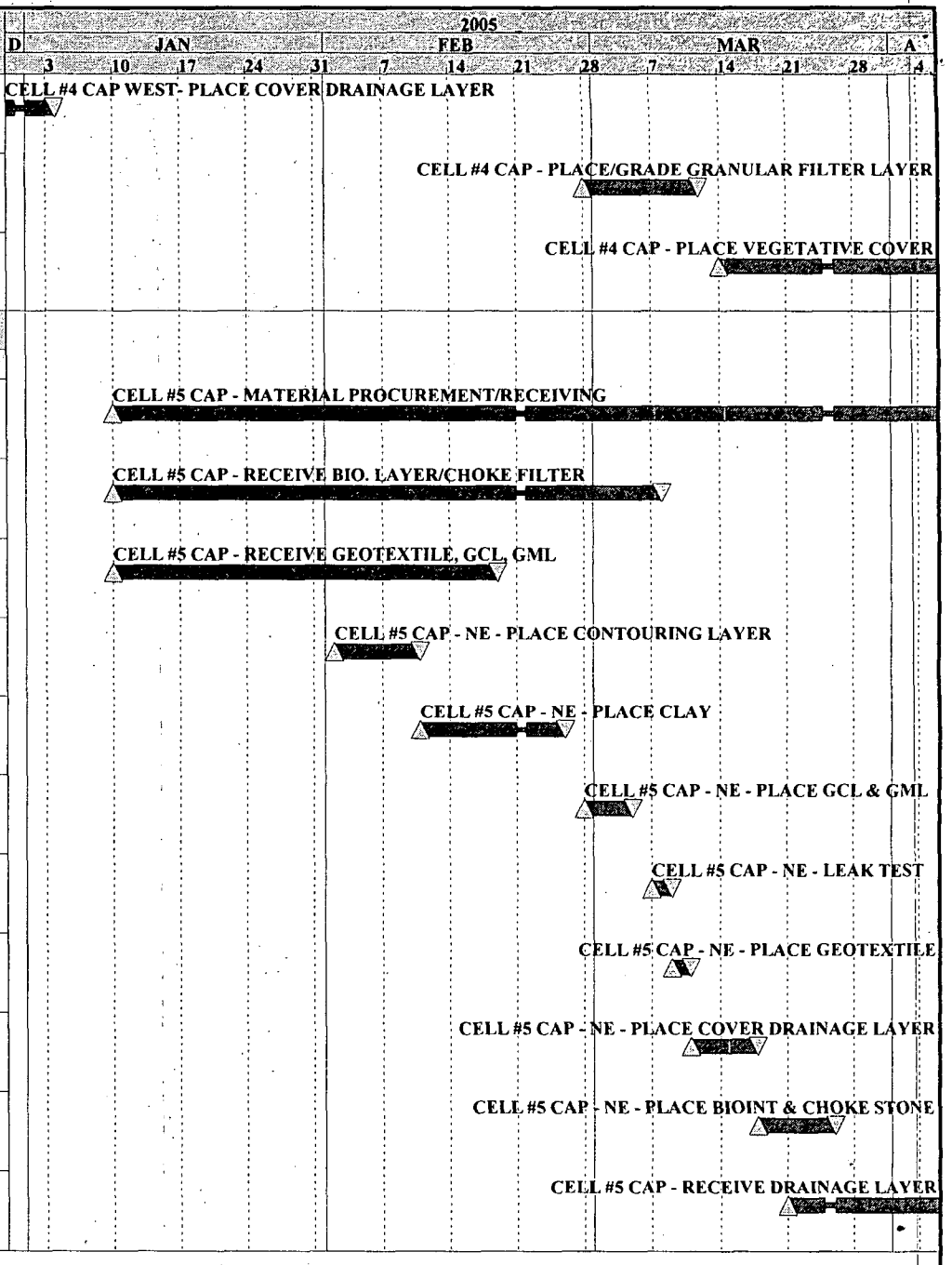
Activity ID	Activity Description	Orig Dur	Rem Dur	% Comp	Early Start	Early Finish
CCCPLDW150	CELL #4 CAP WEST- PLACE COVER DRAINAGE LAYER	6	6	0	22DEC04	03JAN05
CCCPLD5170	CELL #4 CAP - PLACE/GRADE GRANULAR FILTER LAYER	10	10	0	28FEB05	11MAR05
CCCPLD5180	CELL #4 CAP - PLACE VEGETATIVE COVER	21	21	0	14MAR05	12APR05
Cell #5						
PBS 03 - ON-SITE DISPOSAL FACILITY						
CCCPLF0020	CELL #5 CAP - MATERIAL PROCUREMENT/RECEIVING	69	69	0	10JAN05	18APR05
CCCPLF5520	CELL #5 CAP - RECEIVE BIO. LAYER/CHOKE FILTER	40	40	0	10JAN05*	07MAR05
CCCPLF5240	CELL #5 CAP - RECEIVE GEOTEXTILE, GCL, GML	30	30	0	10JAN05	18FEB05
CCCPLFN080	CELL #5 CAP - NE - PLACE CONTOURING LAYER	7	7	0	02FEB05	10FEB05
CCCPLFN090	CELL #5 CAP - NE - PLACE CLAY	10	10	0	11FEB05	25FEB05
CCCPLN5120	CELL #5 CAP - NE - PLACE GCL & GML	5	5	0	28FEB05	04MAR05
CCCPLFN500	CELL #5 CAP - NE - LEAK TEST	2	2	0	07MAR05	08MAR05
CCCPLFN140	CELL #5 CAP - NE - PLACE GEOTEXTILE	2	2	0	09MAR05	10MAR05
CCCPLFN150	CELL #5 CAP - NE - PLACE COVER DRAINAGE LAYER	5	5	0	11MAR05	17MAR05
CCCPLFN160	CELL #5 CAP - NE - PLACE BIOINT & CHOKE STONE	6	6	0	18MAR05	25MAR05
CCCPLF5030	CELL #5 CAP - RECEIVE DRAINAGE LAYER	20	20	0	21MAR05	18APR05



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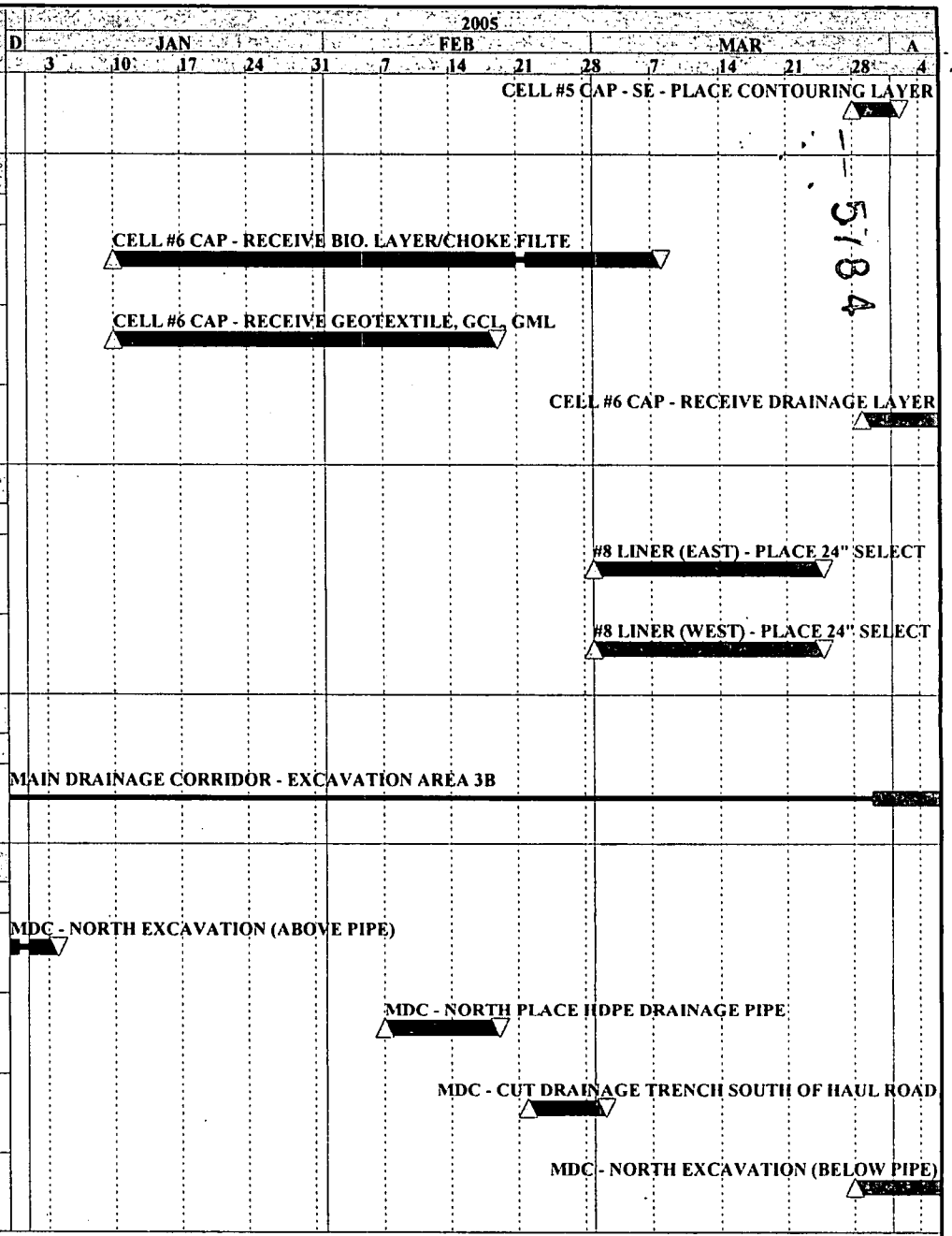
Activity ID	Activity Description	Orig Dur	Rem Dur	% Comp	Early Start	Early Finish
CCCPLFS080	CELL #5 CAP - SE - PLACE CONTOURING LAYER	5	5	0	28MAR05*	01APR05
Cell #6						
PBS 03 - ON-SITE DISPOSAL FACILITY.						
CCCPLH5520	CELL #6 CAP - RECEIVE BIO. LAYER/CHOKE FILTE	40	40	0	10JAN05	07MAR05
CCCPLH5240	CELL #6 CAP - RECEIVE GEOTEXTILE, GCL, GML	30	30	0	10JAN05	18FEB05
CCCPLH5030	CELL #6 CAP - RECEIVE DRAINAGE LAYER	20	20	0	29MAR05	25APR05
Cell #8						
PBS 03 - ON-SITE DISPOSAL FACILITY						
CCCPLME300	#8 LINER (EAST) - PLACE 24" SELECT	18	18	0	01MAR05*	24MAR05
CCCPLMW300	#8 LINER (WEST) - PLACE 24" SELECT	18	18	0	01MAR05	24MAR05
MDC 3B Area						
PBS 06 - SEP PROJECT						
GGMDCE0020	MAIN DRAINAGE CORRIDOR - EXCAVATION AREA 3B	160	23	15	22JUN04A	29APR05
MDC-N North Area						
PBS 06 - SEP PROJECT						
GGMDCE0060	MDC - NORTH EXCAVATION (ABOVE PIPE)	20	13	75	16SEP04A	03JAN05
GGMDCE0170	MDC - NORTH PLACE HDPE DRAINAGE PIPE	10	10	0	07FEB05*	18FEB05
GGMDCE0190	MDC - CUT DRAINAGE TRENCH SOUTH OF HAUL ROAD	6	6	0	22FEB05	01MAR05
GGMDCE0160	MDC - NORTH EXCAVATION (BELOW PIPE)	20	20	0	28MAR05*	22APR05



1-518-4

Start Date	25FEB02
Finish Date	07APR06
Data Date	12DEC04
Run Date	13DEC04 17:14

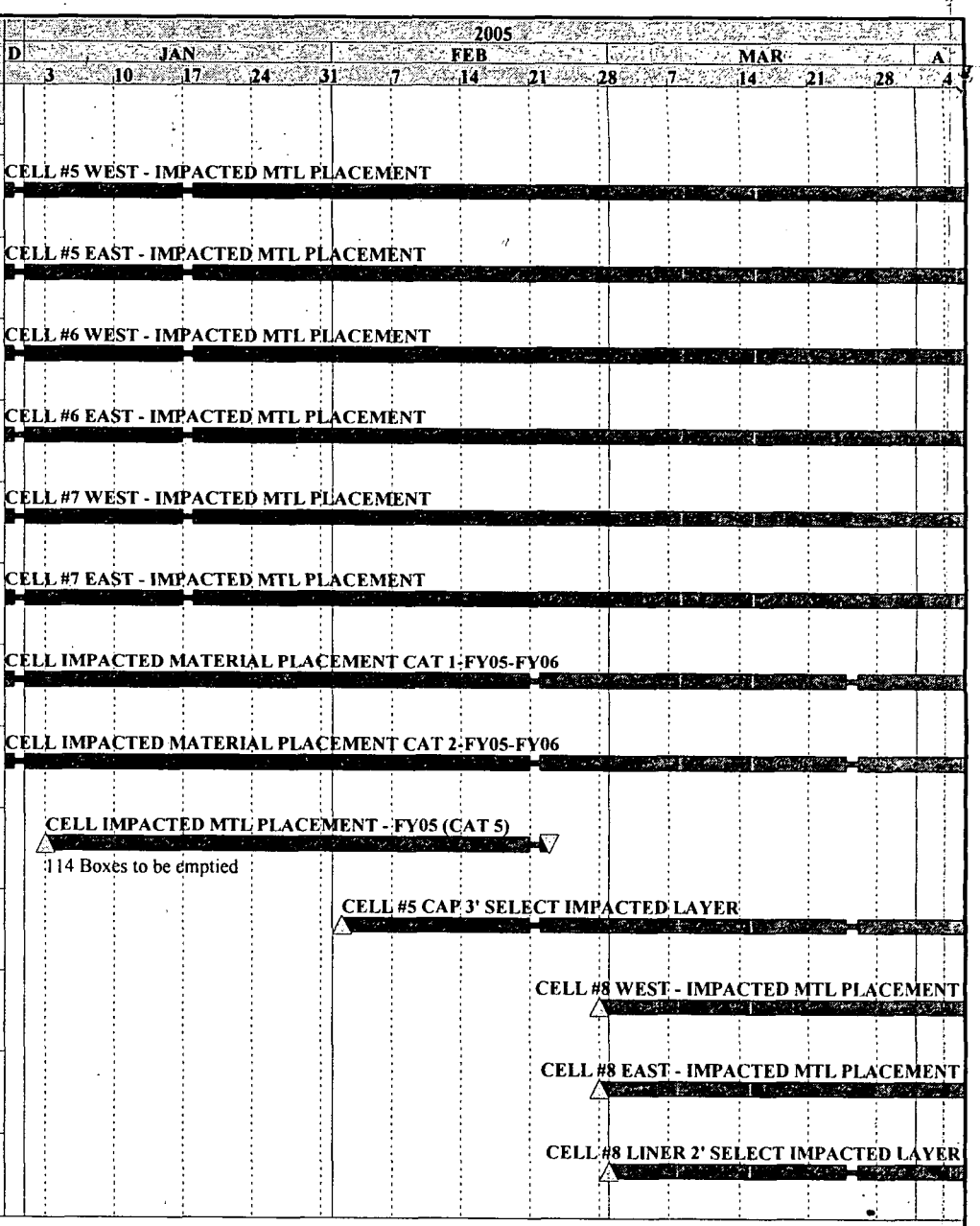
Early Bar
Progress Bar
Critical Activity

C411

FLUOR FERNALD, INC
November 2004
Winter 2004 Placement

Date	Revision	Checked	Approved

Activity ID	Activity Description	Orig Dur	Rem Dur	% Comp	Early Start	Early Finish
Placement						
PBS 03 - ON-SITE DISPOSAL FACILITY						
CCCPL36120	CELL #5 WEST - IMPACTED MTL PLACEMENT	254	172	52	18NOV02A	05JUN05
CCCPL36110	CELL #5 EAST - IMPACTED MTL PLACEMENT	254	125	52	18NOV02A	18APR05
CCCPL36140	CELL #6 WEST - IMPACTED MTL PLACEMENT	254	228	42	17NOV03A	01AUG05
CCCPL36130	CELL #6 EAST - IMPACTED MTL PLACEMENT	254	144	42	17NOV03A	07MAY05
CCCPL36160	CELL #7 WEST - IMPACTED MTL PLACEMENT	254	251	4	20SEP04A	24AUG05
CCCPL36150	CELL #7 EAST - IMPACTED MTL PLACEMENT	254	209	4	20SEP04A	13JUL05
CCCPL30030	CELL IMPACTED MATERIAL PLACEMENT CAT 1-FY05-FY06	278*	230*	13	01OCT04A	09NOV05
CCCPL35180	CELL IMPACTED MATERIAL PLACEMENT CAT 2-FY05-FY06	265*	217*	12	01OCT04A	21OCT05
CCCPL35190	CELL IMPACTED MTL PLACEMENT - FY05 (CAT 5)	36	36	0	03JAN05*	22FEB05
CCCPL30130	CELL #5 CAP 3' SELECT IMPACTED LAYER	79	79	0	02FEB05*	25MAY05
CCCPL36190	CELL #8 WEST - IMPACTED MTL PLACEMENT	181	181	0	28FEB05*	29AUG05
CCCPL3170	CELL #8 EAST - IMPACTED MTL PLACEMENT	164	164	0	28FEB05*	12AUG05
CCCPL30075	CELL #8 LINER 2' SELECT IMPACTED LAYER	26	26	0	01MAR05	06APR05



5784

Start Date	25FEB02
Finish Date	07APR06
Data Date	12DEC04
Run Date	13DEC04 17:14

Early Bar
Progress Bar
Critical Activity

C411

FLUOR FERNALD, INC
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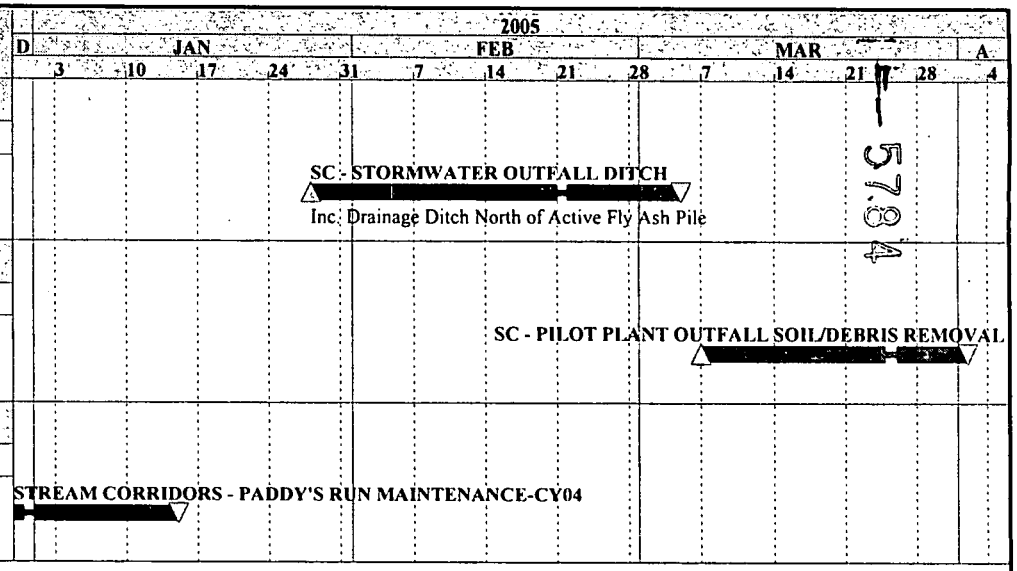
Activity ID	Activity Description	Orig Dur	Rem Dur	% Comp	Early Start	Early Finish
SSOD - Storm Sewer Outfall Ditch						
PBS 06 - SEP PROJECT						
GGPR140140	SC - STORMWATER OUTFALL DITCH	25	25	0	28JAN05*	04MAR05
PPDD - Pilot Plant Drainage Ditch						
PBS 06 - SEP PROJECT						
GGPR140120	SC - PILOT PLANT OUTFALL SOIL/DEBRIS REMOVAL	19	19	0	07MAR05*	01APR05
Streams Corridor						
PBS 06 - SEP PROJECT						
GGPR1S5180	STREAM CORRIDORS - PADDY'S RUN MAINTENANCE-CY04	386	22	2	01APR04A	14JAN05



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Early Bar
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C411

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